CONVERTIBLE TOP

SECURITY RULES

Open convertible top by activating the open/close button

NOTE:

- **Observe safety instructions for electrical convertible top.**
- **Before opening or closing convertible top, observe that there is enough room above convertible top to operate it.**

Security instructions when dealing with the electrical convertible top

WARNING:

- **For security reasons convertible top must only be opened or closed when vehicle is parked.**
- **If opening or closing process is interrupted, convertible top may spring and thus be lowered.**
- **Never drive the vehicle if convertible top is not opened or closed completely.**
- **Do not attempt to close convertible top when rollover bar is activated.**

WARNING:

- **When opening or closing convertible top, observe that nobody gets injured by convertible top, convertible rods or moving covers at rear side windows.**
- **Do not open or close convertible top when vehicle is over a lifting platform, over a trolley jack, or over one side on curb.**

TOOLS

- VAS 6138 Closing Pliers.
- VAS 6148 Staple Pliers.
- VAS 6148/1 Staples.
- VAS 5072 Pop Rivet Pliers.
- V.A.G 1887 Fitting Brackets.

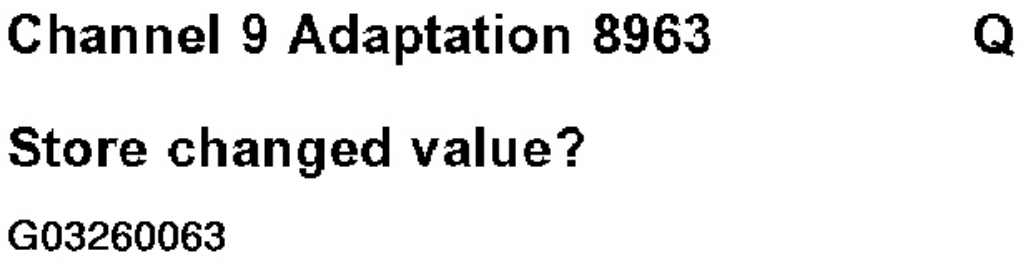


Fig. 1: Identifying Special Tools
Courtesy of VOLKSWAGEN OF AMERICA, INC.

CONVERTIBLE TOP, ASSEMBLY OVERVIEW

NOTE: The following list refers to items in Fig. 2 .

1. **Convertible top frame**
   - Removing convertible top, see **CONVERTIBLE TOP, REMOVING AND INSTALLING** .
2. **Convertible top fabric cover**
   - Replacing, see **CONVERTIBLE TOP FABRIC COVER, REMOVING AND INSTALLING** .
   - Rear window is part of convertible top cover.

   NOTE: Rear window is part of convertible top cover (not serviced separately). Entire convertible top fabric assembly must be replaced if rear window is damaged.

3. **Padding material**
   - Replacing, see **PADDING MATERIAL, REMOVING AND INSTALLING** .
4. **Nut**
   - 10 N.m.
5. **Bolt/screw**
   - Qty. 12.
   - 10 N.m.
6. **Sealing cord**
7. **Convertible top lining**
   - Replacing, see **CONVERTIBLE TOP LINING, REMOVING AND INSTALLING**
8. **Bolt/screw**

- 50 N.m.

9. **Convertible top front latch**
   - Removing, see **CONVERTIBLE TOP FRONT LATCH, ASSEMBLY OVERVIEW**
10. **Front retaining latch**
   - Removing, see **CONVERTIBLE TOP FRONT LATCH, ASSEMBLY OVERVIEW**

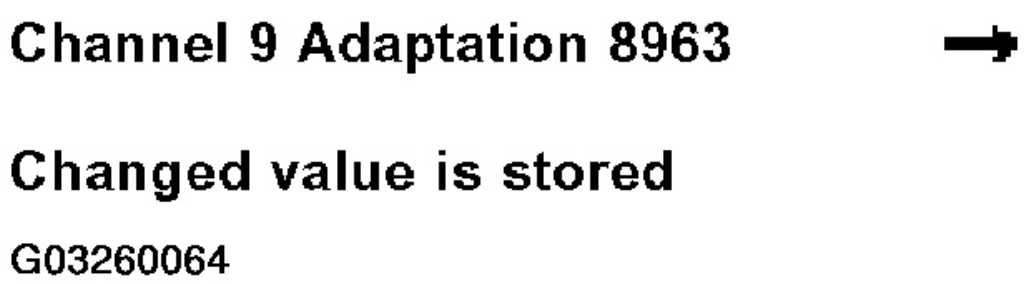


Fig. 2: Exploded View Of Convertible Top
Courtesy of VOLKSWAGEN OF AMERICA, INC.

CONVERTIBLE TOP, REMOVING AND INSTALLING

Removing

NOTE:

- **On models with an electro/hydraulic convertible top the motors for the rod flaps must remain connected to the wiring harness so that the convertible top may be moved hydraulically.**
- **Position side trim panels in the vehicle so that the rod flaps can move freely.**
- **The servo motors may be disconnected from the flap motor.**
- **Protect the vehicle against possible paintwork damage with suitable protective covers and textile reinforced adhesive tape.**

- Remove side trim panel.

  See **SIDE PANEL TRIM, REMOVING AND INSTALLING** .

- Remove head restraint cover

  See **BACKREST (CONVERTIBLE), REMOVING AND INSTALLING** .

- Open convertible top latch to remove pressure from convertible top.
- Remove insert beading -2- from water guide -1-.

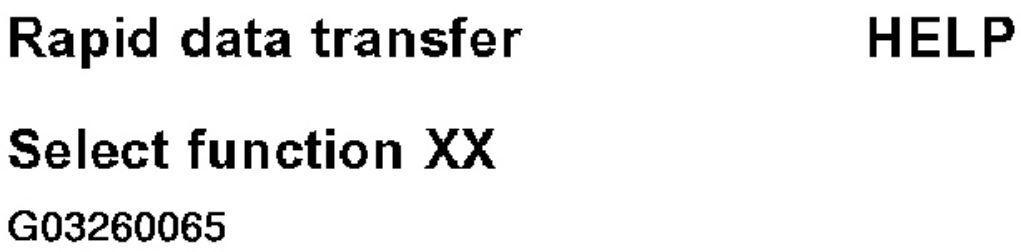


Fig. 3: Removing Insert Beading From Water Guide
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Remove convertible top lining -2- from convertible top fabric cover retaining frame -1- in direction of -arrow-.

Fig. 4: Removing Convertible Top Lining From Convertible Top Fabric Cover Retaining Frame
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Remove bolts/screws -3- (10 N.m) and nuts -4- (10 N.m) from body -1-.
- Press convertible top frame -2- off body -1-.

  Sealing band between convertible top fabric retaining frame and body can lead to convertible top retaining frame bonding slightly.

- Remove luggage compartment side trim on left and right.

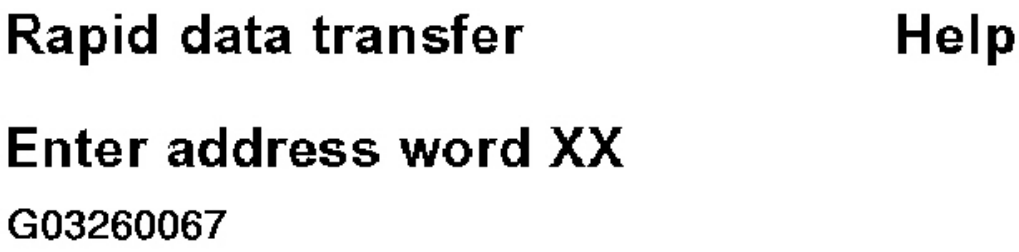


Fig. 5: Removing Convertible Top Frame From Body
Courtesy of VOLKSWAGEN OF AMERICA, INC.

See **LUGGAGE COMPARTMENT TRIM (CONVERTIBLE), REMOVING AND INSTALLING** .

- Disconnect connection -1- on left and right-hand side of rear window.

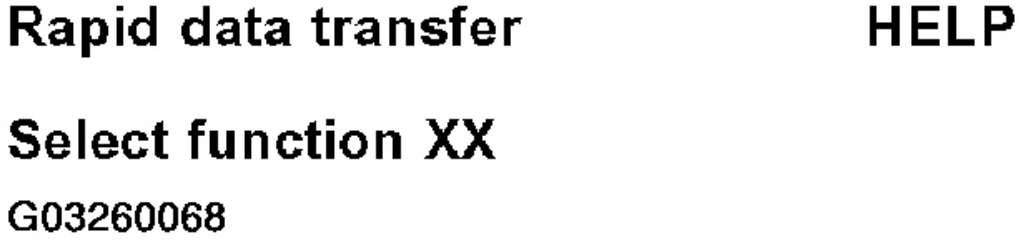


Fig. 6: Disconnecting Connection On Left And Right-Hand Side Of Rear Window
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Guide wiring for heated rear window into interior and unclip from side panel.
- Open convertible top completely.
- Unclip Convertible Top Position Switch -F171- -3- for convertible top position from hydraulic cylinder (right-hand side only).
- Pry securing clip -4- out of piston rod -1-.
- Pry piston rod -1- off ball head -2- using a screwdriver.

Fig. 7: Prying Piston Rod Off Ball Head
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Remove bolts/screws -2-.
- Close convertible top manually but do not lock.
- Remove bolt/screw -4-.

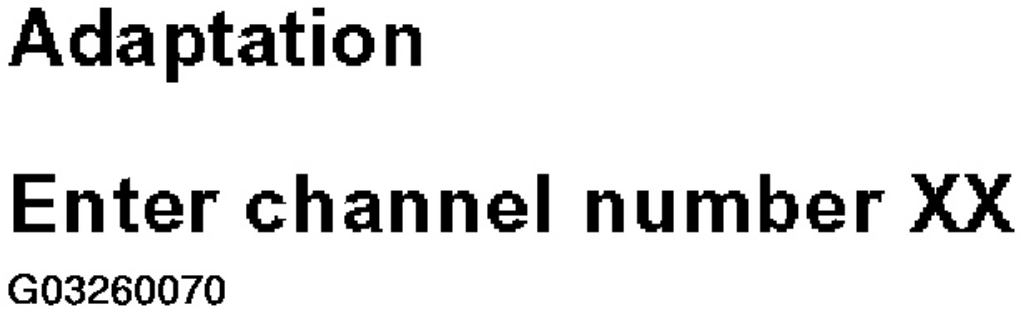


Fig. 8: Removing Convertible Top Bolt/Screw
Courtesy of VOLKSWAGEN OF AMERICA, INC.

NOTE: Never loosen the securing bolts/screws -1- and -3- of the base plate otherwise the default settings for the convertible top will be lost.

- Lift convertible top at main mounting approx. 45° and take forward out of the convertible top box (second mechanic required).

Installing

- Check sealing band -1- on convertible top frame, replace if necessary.
- Place convertible top in convertible top box (second mechanic required).
- Install bolts/screws -2- and -4- and tighten to 50 N.m.

Fig. 9: Identifying Sealing Band On Convertible Top Frame
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Position convertible top frame centrally and tighten nut -4- (10 N.m).
- Tighten bolts/screws -3- (10 N.m) working from the center outward.

Fig. 10: Positioning Convertible Top Frame Centrally
Courtesy of VOLKSWAGEN OF AMERICA, INC.

NOTE: make sure that the convertible top fabric retaining frame is positioned at the same height.

Install in reverse order of removal.

CONVERTIBLE TOP FABRIC COVER, REMOVING AND INSTALLING

NOTE:

- **On models with an electro/hydraulic convertible top the motors for the rod flaps must remain connected to the wiring harness so that the convertible top may be moved hydraulically.**
- **Position side trim panels in the vehicle so that the rod flats can move freely.**
- **The servo motors may be disconnected from the flap motor.**
- **Protect the vehicle against possible paintwork damage with suitable protective covers and textile reinforced adhesive tape.**

- Remove side trim panel.

  See **SIDE PANEL TRIM, REMOVING AND INSTALLING** .

- Remove head restraint cover.

  See **BACKREST (CONVERTIBLE), REMOVING AND INSTALLING** .

Removing

- Open convertible top half way.
- Observe security rules, see **CONVERTIBLE TOP** .
- Remove roof leading edge trim, see **CONVERTIBLE TOP FRONT LATCH, ASSEMBLY OVERVIEW**
- Pull roof frame front seal off roof frame -arrow-.

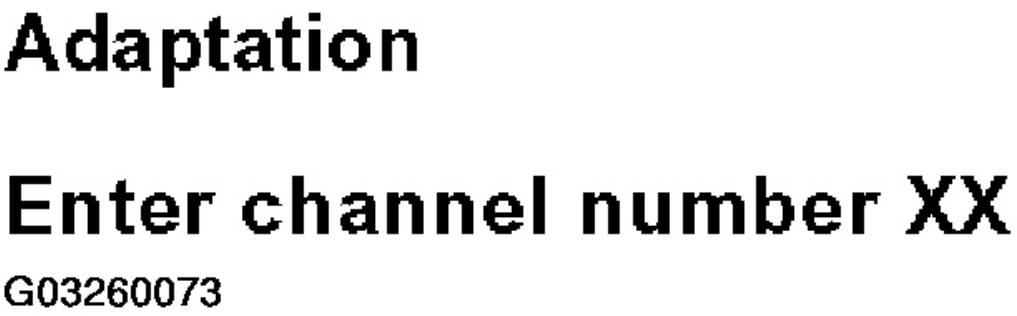


Fig. 11: Pulling Roof Frame Front Seal From Roof Frame
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Remove convertible top fabric securing bolt/screw -arrow-.

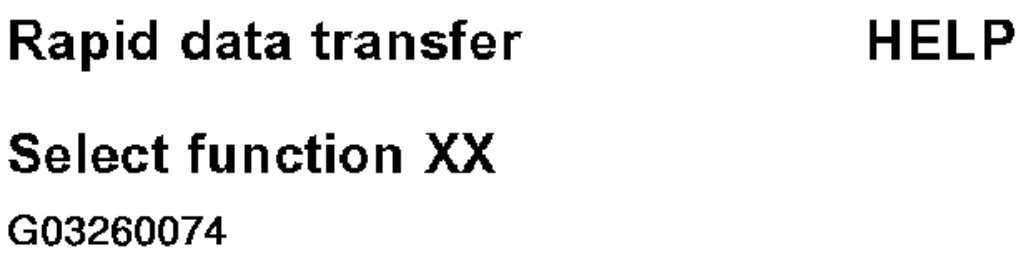


Fig. 12: Removing Convertible Top Fabric Securing Bolt/Screw
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Pull convertible top fabric clamping beading out to side from roof leading edge clamping channel -arrow-.

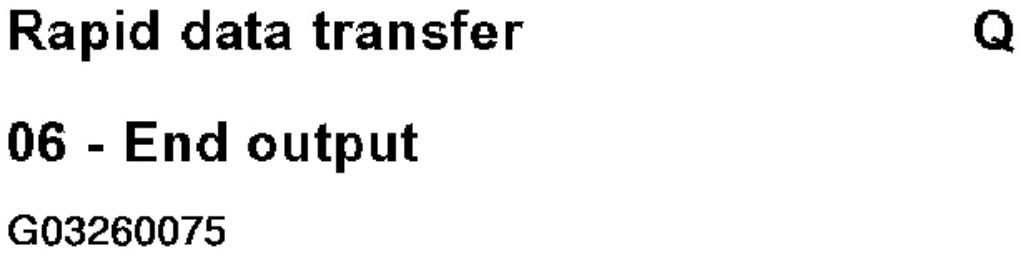


Fig. 13: Pulling Convertible Top Fabric Clamping Beading Out To Side From Roof Leading Edge Clamping Channel
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Pull hooking beading out of front of roof leading edge -arrow-.

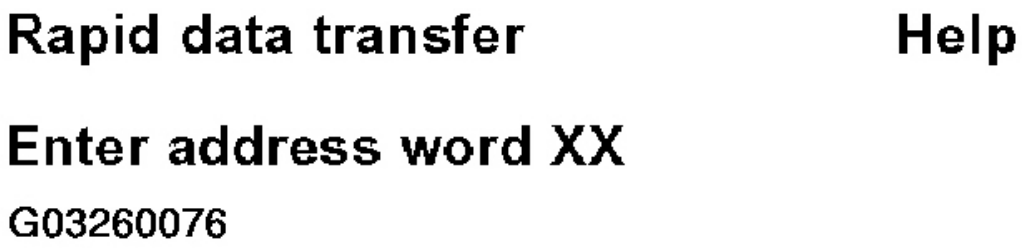


Fig. 14: Pulling Hooking Beading Out Of Front Of Roof Leading Edge
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Unhook cable with ball -1-.

Fig. 15: Removing Cable Hook With Ball
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Drill out pop rivet -arrow- from interior for side tensioning belt -1-.

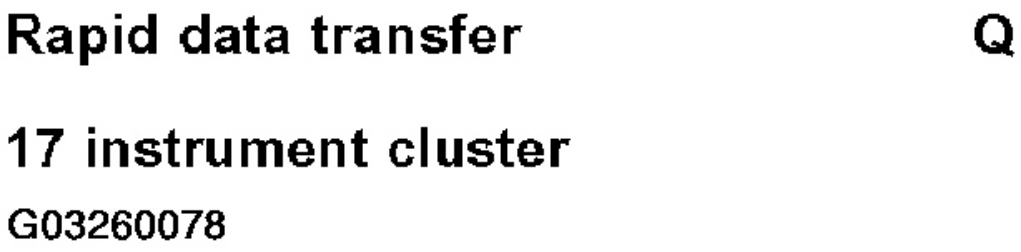


Fig. 16: Drilling Out Pop Rivet From Interior For Side Tensioning Belt
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Remove C-pillar roof frame seal in direction of -arrow-.

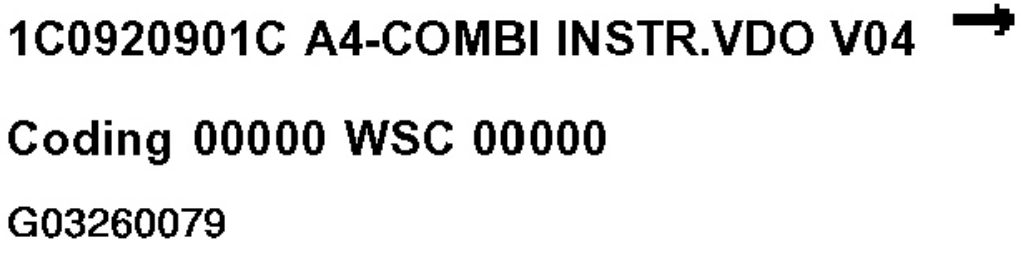


Fig. 17: Removing C-Pillar Roof Frame Seal
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Remove beading from C-pillar channel in direction of -arrow-.

Fig. 18: Removing Beading From C-Pillar Channel
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Close convertible top.
- Fold convertible top fabric cover rearward.
- Cut through staple using side cutting pliers and open front of zip fastener.

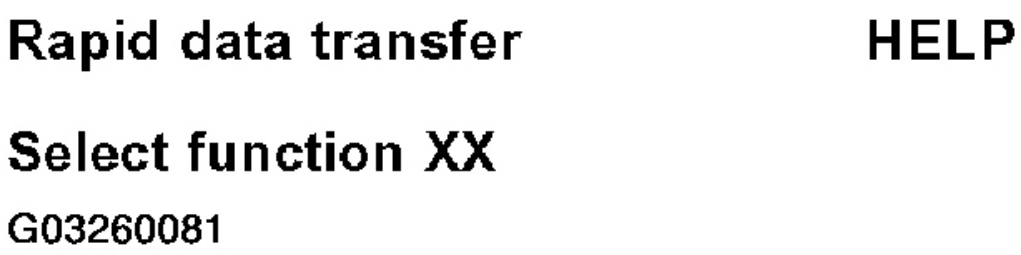


Fig. 19: Cutting Through Staple
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Remove insert beading -2- from water guide -1-.

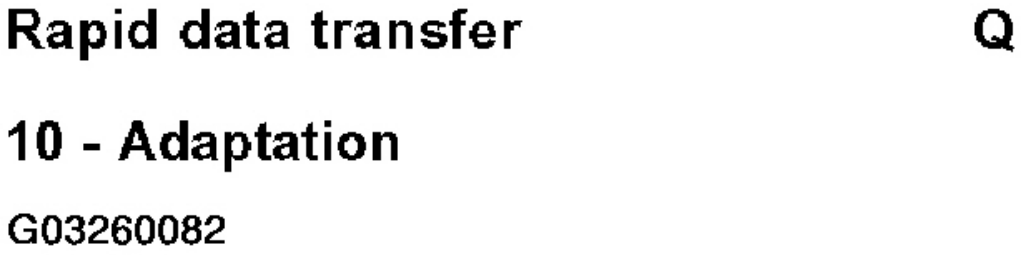


Fig. 20: Removing Insert Beading From Water Guide
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Remove convertible top lining -2- out of convertible top fabric retaining frame -1- in direction of -arrow-.

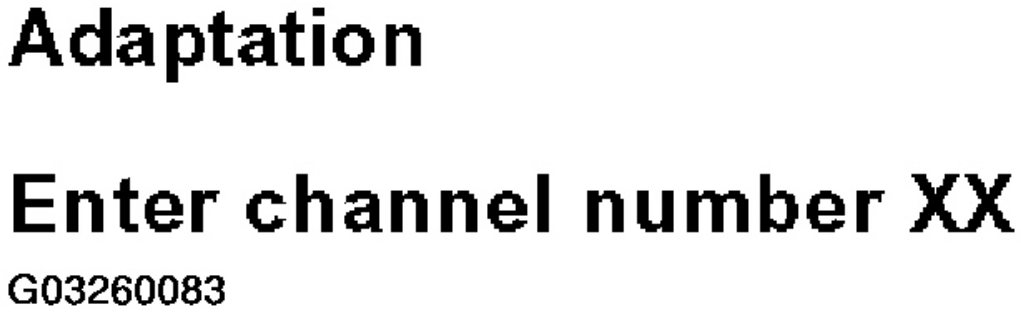


Fig. 21: Removing Convertible Top Lining Out Of Convertible Top Fabric Retaining Frame
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Remove beading -2- out of rear window insert channel -1- -arrow-.

Fig. 22: Removing Beading Out Of Rear Window Insert Channel
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Disconnect electrical connection -1- for rear window defroster -Z1-.
- Drill pop rivet -4- carefully out of retaining clip -5-.
- Pull securing clip -3- out of ball socket -2-.
- Pull hinge -6- out of ball socket.

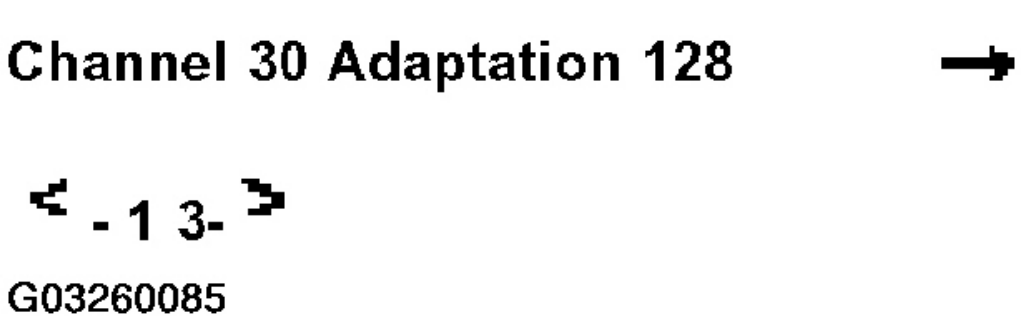


Fig. 23: Disconnecting Electrical Connection For Rear Window Defroster
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Remove bolts/screws -3- (10 N.m) and nuts -4-(10 N.m) from body -1-.
- Press convertible top fabric retaining frame -2- off body -1-.

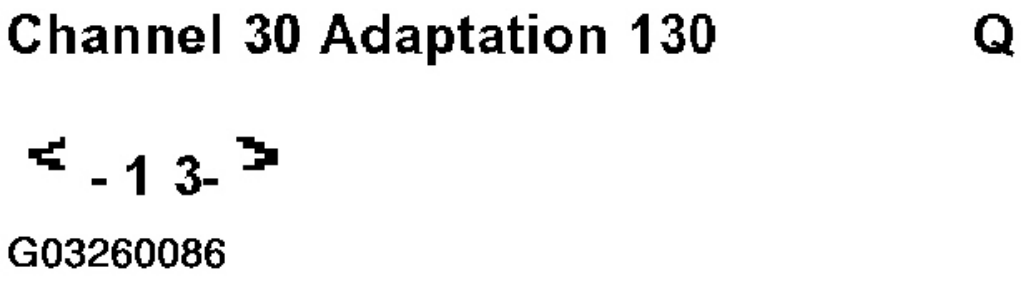


Fig. 24: Removing Convertible Top Fabric Retaining Frame From Body
Courtesy of VOLKSWAGEN OF AMERICA, INC.

Sealing band between the convertible top fabric retaining frame and body can lead to convertible top retaining frame bonding slightly.

- Secure convertible top fabric retaining frame with Assembly Bracket V.A.G 1887 to body.

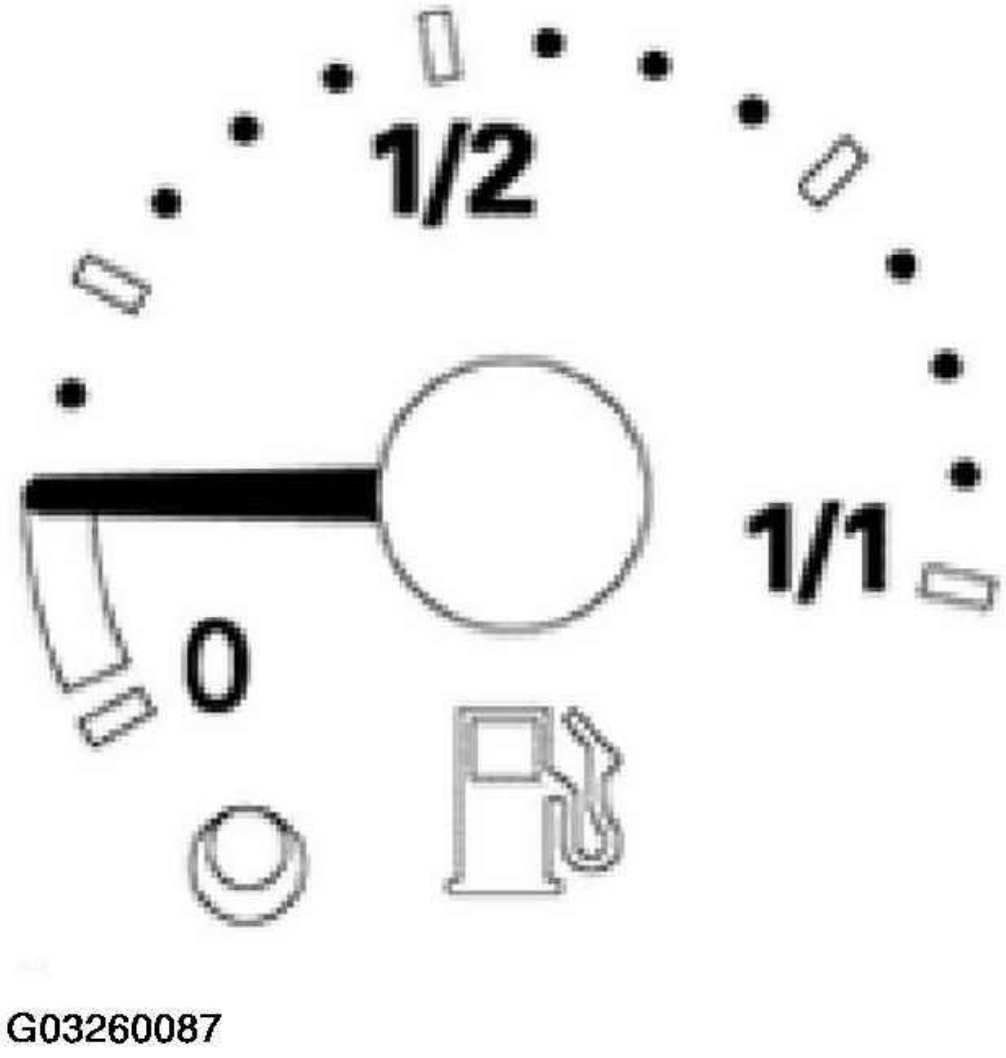


Fig. 25: Securing Convertible Top Fabric Retaining Frame With Assembly Bracket V.A.G 1887 To Body
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Cut through staple using side cutting pliers and open center and rear of zip fastener.

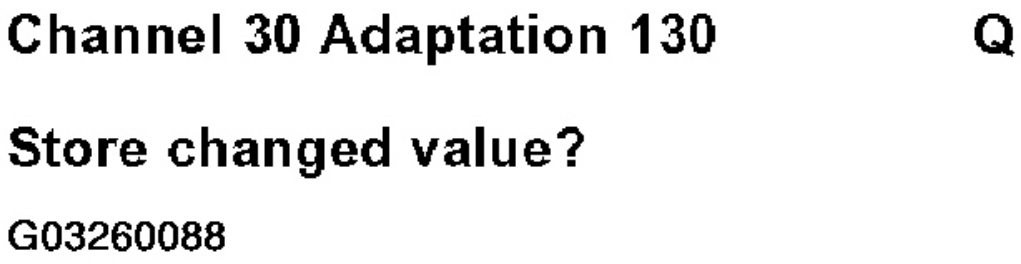


Fig. 26: Cutting Through Staple
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Release padding material bonding on C-pillar -arrow-.

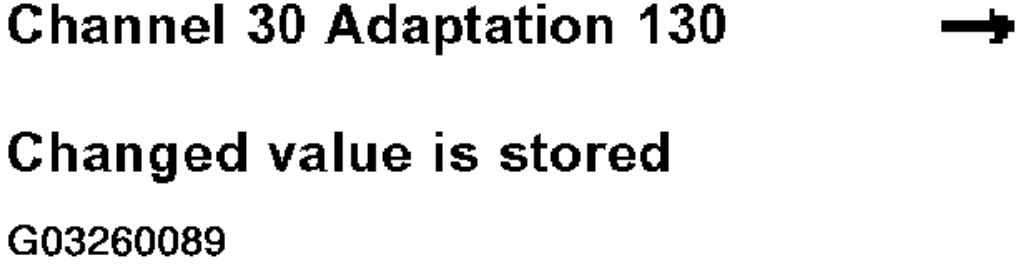


Fig. 27: Removing Padding Material Bonding On C-Pillar
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Remove bolt/screw -1- for convertible top cover tensioning cable.
- Pull tensioning cable out if replacing convertible top cover.
- Remove screw -2- securing elastic strap to convertible roof frame.

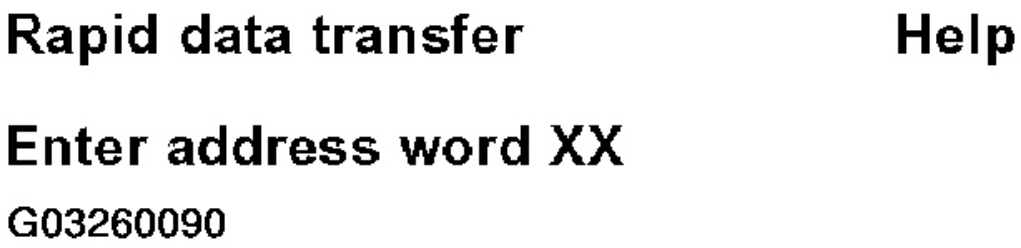


Fig. 28: Removing Bolt/Screw For Convertible Top Cover Tensioning Cable
Courtesy of VOLKSWAGEN OF AMERICA, INC.

WARNING: For security reasons, hold tensioning cable while removing screw

- Pull convertible top fabric -1- out of convertible top retaining rail -2- to side in direction of -arrow- (second mechanic required).

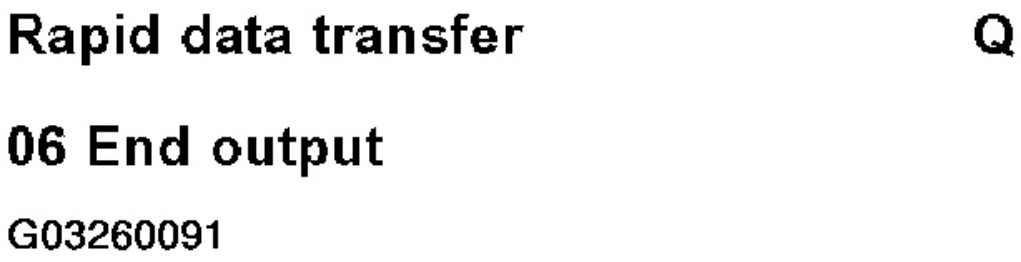


Fig. 29: Pulling Convertible Top Fabric Out Of Convertible Top Retaining Rail
Courtesy of VOLKSWAGEN OF AMERICA, INC.

Installing

- Slide convertible top fabric into convertible top retaining rail from side (second mechanic required).

  Use lubricant when pulling in (e.g. silicone lubricant spray D 007 000 A2).

- Align mark on rear of padding material with mark on convertible top fabric.

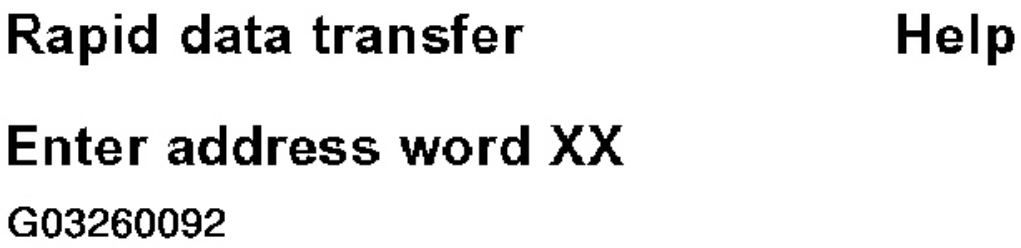


Fig. 30: Aligning Mark On Rear Of Padding Material With Mark On Convertible Top Fabric
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Close zip fastener using Closing Pliers VAS 6138.

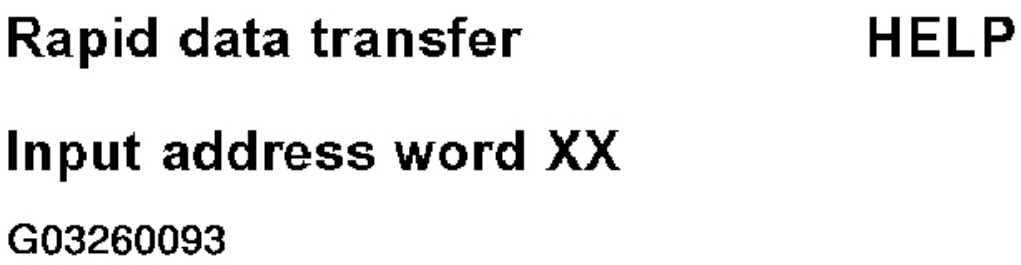


Fig. 31: Closing Zip Fastener
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Secure ends of zip fastener with Staple Pliers VAS 6148.

Fig. 32: Securing Ends Of Zip Fastener
Courtesy of VOLKSWAGEN OF AMERICA, INC.

Make sure that the staple is closed correctly.

- Align mark on center of padding material with mark on convertible top fabric and close zip fastener.
- Align mark on front of padding material with mark on convertible top fabric and close zip fastener.
- If replacing convertible top fabric cover, pull tensioning cable into side of convertible top fabric with aid of pilot wire.

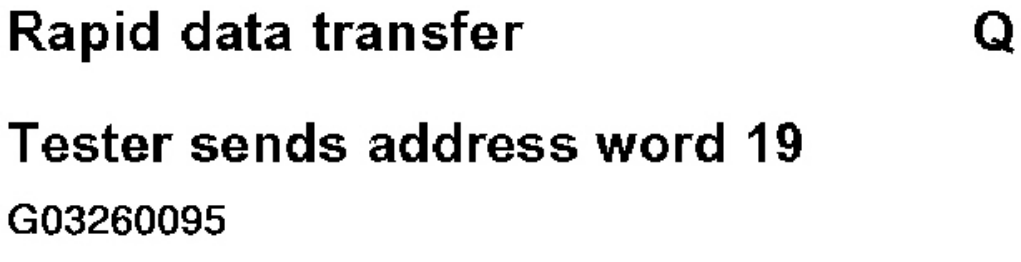


Fig. 33: Pulling Tensioning Cable Into Side Of Convertible Top Fabric With Aid Of Pilot Wire
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Secure rear of cable with bolt/screw.

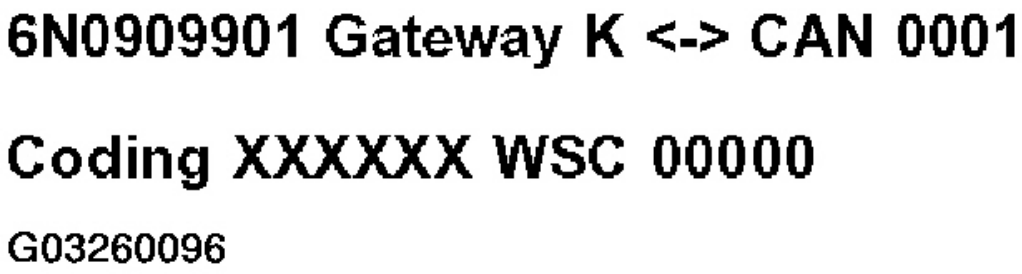


Fig. 34: Securing Rear Of Cable With Bolt/Screw
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Hook ball into front of roof frame.

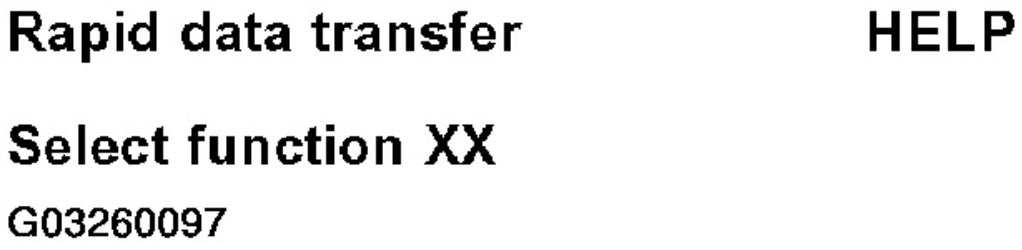


Fig. 35: Hooking Ball Into Front Of Roof Frame
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Stick padding material onto C-pillar -arrow-using double-sided adhesive tape.

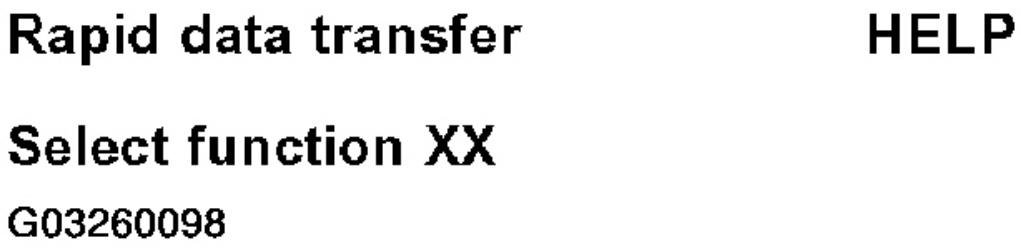


Fig. 36: Sticking Padding Material Onto C-Pillar
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Check sealing cord -1- on convertible top retaining frame, replace if necessary.

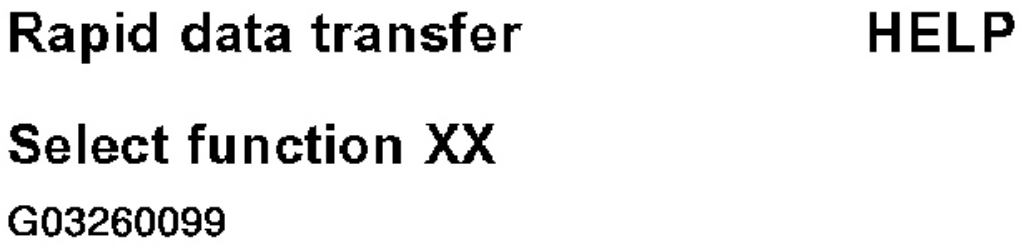


Fig. 37: Identifying Sealing Cord On Convertible Top Retaining Frame
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Remove Assembly Bracket V.A.G 1887 from convertible top fabric retaining frame and body.

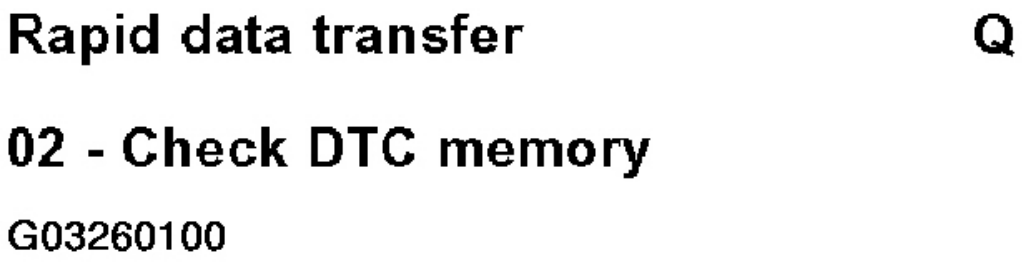


Fig. 38: Removing Assembly Bracket V.A.G 1887 From Convertible Top Fabric Retaining Frame And Body
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Position convertible top fabric retaining frame and tighten nut -4- (10 N.m) first.
- Tighten bolts/screws -3- (10 N.m) working from the center outward.

Fig. 39: Positioning Convertible Top Fabric Retaining Frame
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Press hinge -6- into ball socket -2- and secure with securing clip -3-.
- Secure retaining clip -5- with a pop rivet -4-.
- Reconnect electrical connection -1- for rear window defroster.

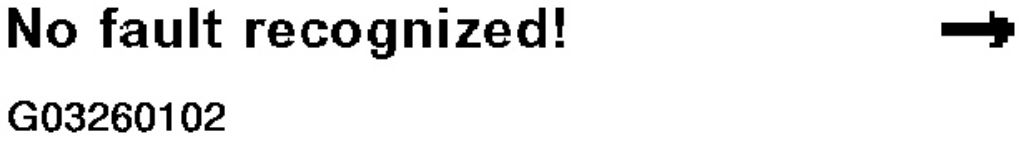


Fig. 40: Pressing Hinge Into Ball Socket
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Press beading into insert channel of rear window -arrow-.

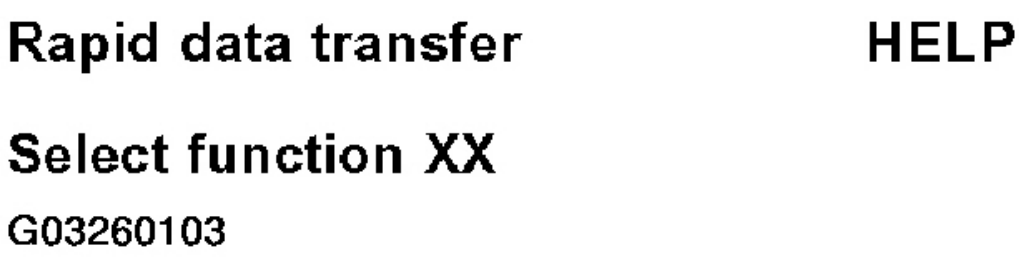


Fig. 41: Pressing Beading Into Insert Channel Of Rear Window
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Hook convertible top lining -2- into convertible top fabric retaining frame -1- in opposite direction of -arrow-.

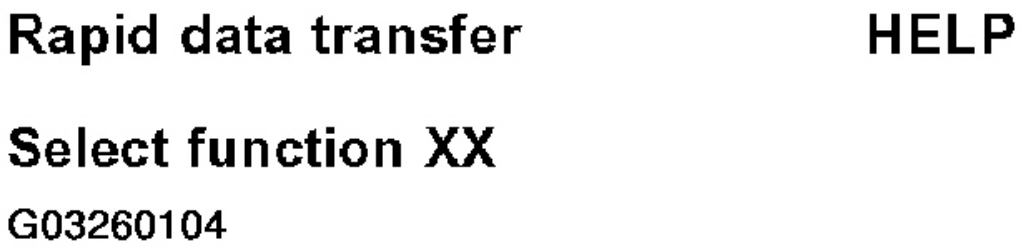


Fig. 42: Hooking Convertible Top Lining Into Convertible Top Fabric Retaining Frame
Courtesy of VOLKSWAGEN OF AMERICA, INC.

Start at the center when doing this.

- Secure water guide -1- with insert beading -2-.

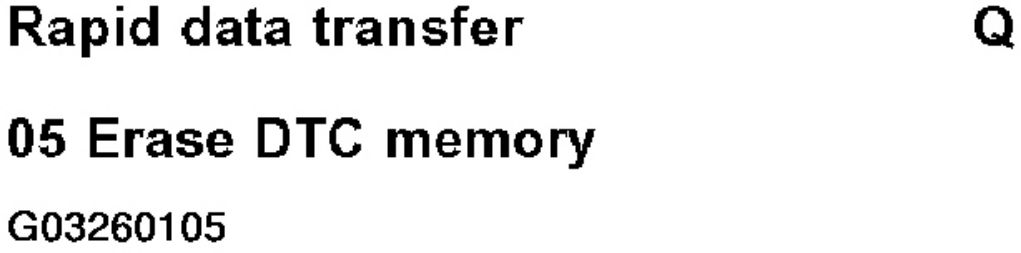


Fig. 43: Securing Water Guide With Insert Beading
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Secure side tensioning belt -1- to convertible top frame with a pop rivet.
- Open convertible top to half open position.

Fig. 44: Securing Side Tensioning Belt To Convertible Top Frame With Pop Rivet
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Insert beading into C-pillar channel in direction of -arrow-.

NOTE: Beading must close flush with upper edge of C-pillar.

Fig. 45: Inserting Beading Into C-Pillar Channel
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Hook hooking beading into channel on front of roof leading edge -arrow-.

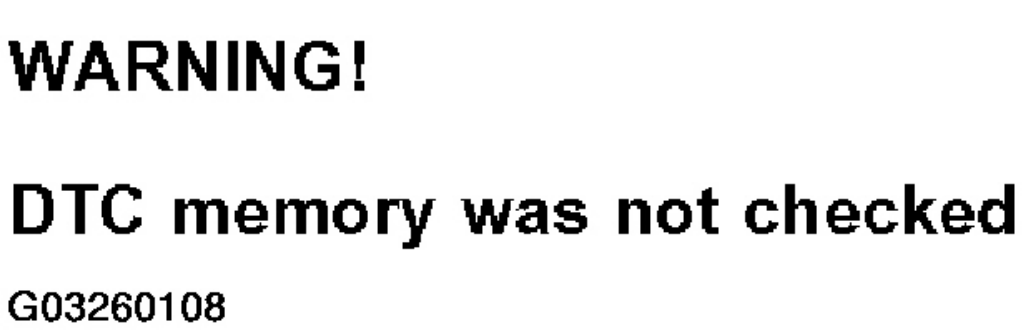


Fig. 46: Installing Hooking Beading Into Channel On Front Of Roof Leading Edge
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Press convertible top fabric clamping beading into side of roof leading edge clamping channel -arrow-.

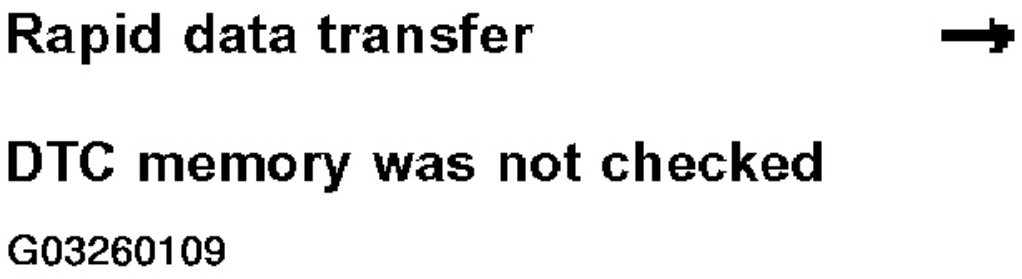


Fig. 47: Pressing Convertible Top Fabric Clamping Beading Into Side Of Roof Leading Edge Clamping Channel
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Install convertible top fabric securing bolt/screw -arrow-.

Fig. 48: Installing Convertible Top Fabric Securing Bolt/Screw
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Install roof frame front seal -arrow A-.
- Install C-pillar seal -arrow B-.

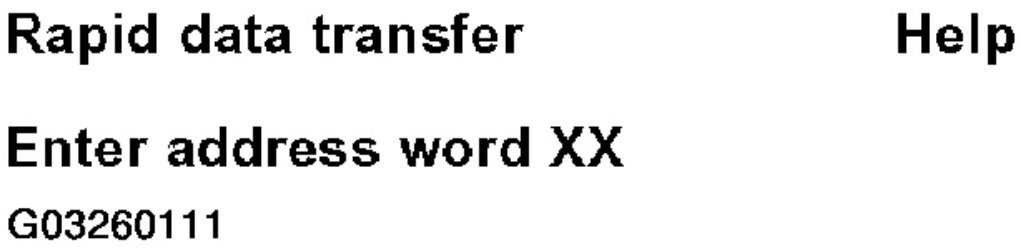


Fig. 49: Installing Roof Frame Front Seal
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Install roof leading edge trim, see **CONVERTIBLE TOP FRONT LATCH, ASSEMBLY OVERVIEW** .
- Install side panel trim

  See **SIDE PANEL TRIM, REMOVING AND INSTALLING** .

- Install head restraint trim.

  See **BACKREST (CONVERTIBLE), REMOVING AND INSTALLING** .

PADDING MATERIAL, REMOVING AND INSTALLING

Removing

- Remove convertible top cover. See **CONVERTIBLE TOP FABRIC COVER, REMOVING AND INSTALLING** .
- Remove C-pillar padding securing bolts/screws from convertible top fabric retaining frame and pull clamping beading out -arrow-.

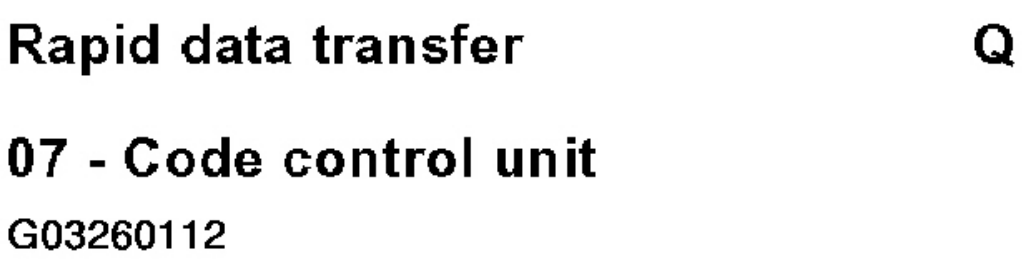


Fig. 50: Removing C-Pillar Padding From Convertible Top Fabric Retaining Frame
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Guide wiring for heated rear window and hinge through padding material.

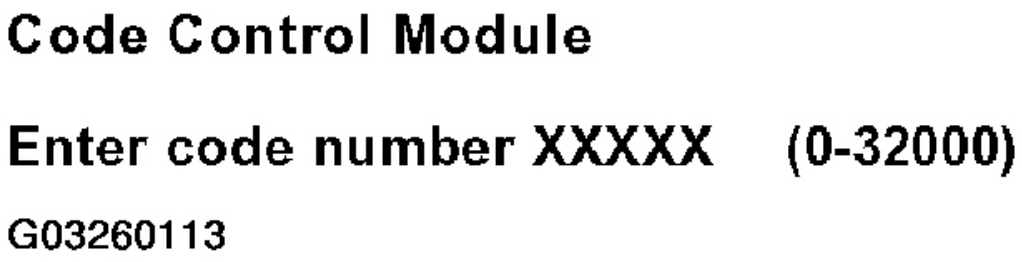


Fig. 51: Identifying Wiring For Heated Rear Window
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Remove securing bolt on roof frame for rubber cable.

WARNING: For security reasons, hold tension on elastic strap while removing screw

- Pull rubber cable out of loop on convertible top lining.

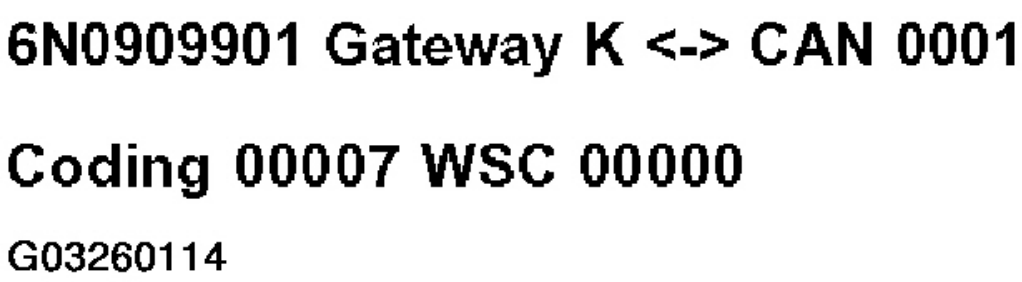


Fig. 52: Removing Securing Bolt On Roof Frame For Rubber Cable
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Pull beading out of roof leading edge.

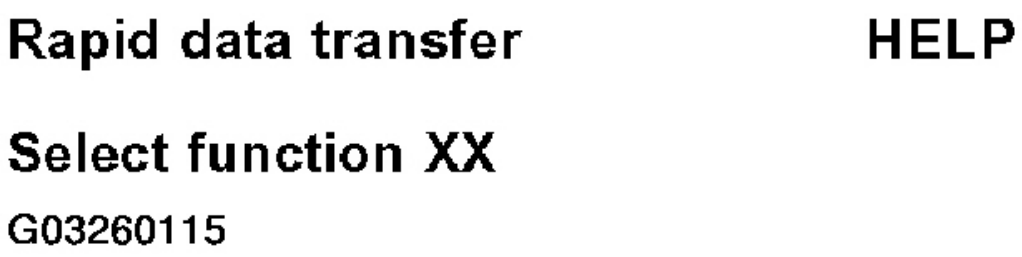


Fig. 53: Pulling Beading Out Of Roof Leading Edge
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Open convertible top to half open position.
- Remove convertible top lining as far as rear bracing hoop, see **CONVERTIBLE TOP LINING, REMOVING AND INSTALLING** .
- Remove securing bolts/screws -1- for top padding tensioning belt from sides of bracing hoops 2 and 4.

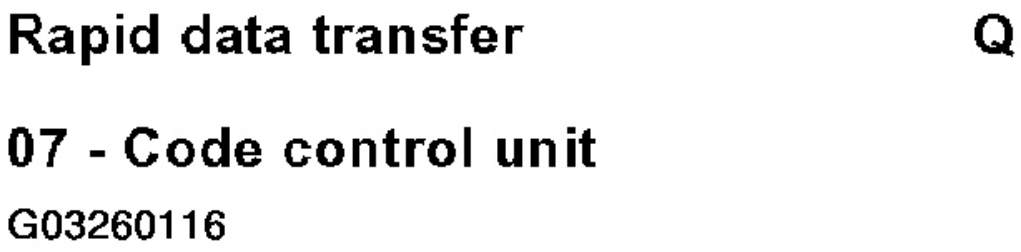


Fig. 54: Removing Top Padding Tensioning Belt Securing Bolts/Screws
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Remove guiding rubber cable securing bolt/screw from bracing hoop 3 to tensioning cable convertible top frame -arrow-.

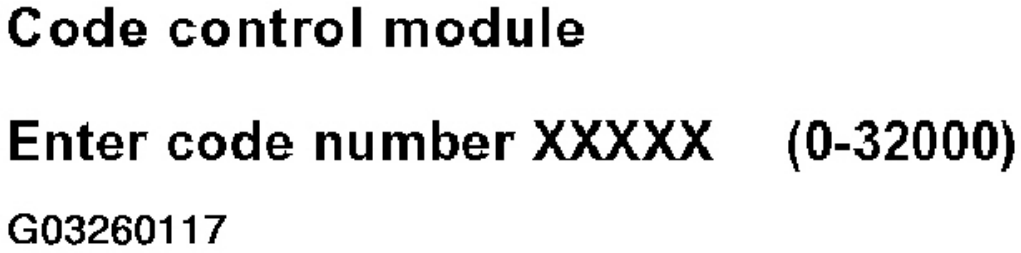


Fig. 55: Removing Guiding Rubber Cable Securing Bolt/Screw
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Remove guiding rubber cable securing bolt/screw from bracing hoop 2 -arrow-.

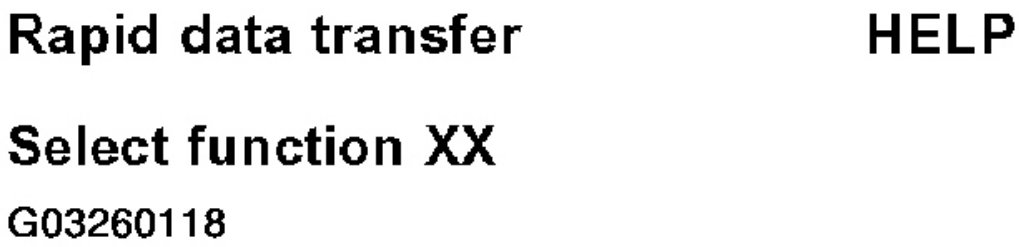


Fig. 56: Removing Guiding Rubber Cable Securing Bolt/Screw From Bracing Hoop
Courtesy of VOLKSWAGEN OF AMERICA, INC.

WARNING: For security reasons, hold tension on elastic strap while removing screw

- Fold padding material to rear.
- Pull padding material out of bracing hoop -arrow- to side.

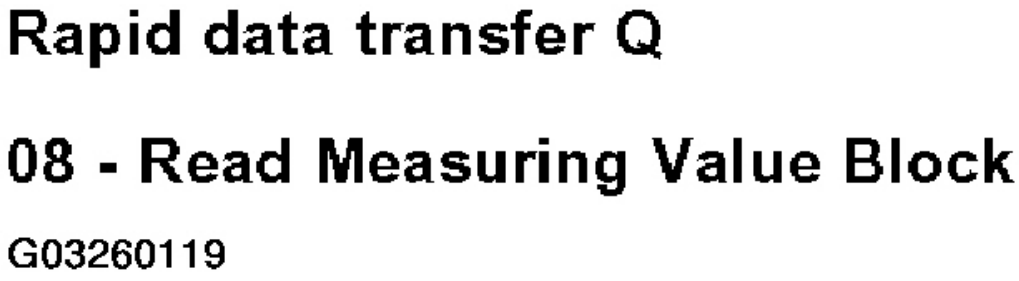


Fig. 57: Pulling Padding Material Out Of Bracing Hoop To Side
Courtesy of VOLKSWAGEN OF AMERICA, INC.

Installing

- Pull padding material into bracing hoops 2, 4 and the rear bracing hoop.

  Use lubricant when pulling in (e.g. silicone lubricant spray D 007 000 A2).

- Press beading into roof leading edge.
- Align marks on the padding material with the marks on the convertible top frame.
- Slide clamping profile, tensioning belt, padding material into bracing hoops 2 and 4.
- Install securing bolts/screws into beading along sides of bracing hoops 2 and 4.
- Secure elastic strap to convertible top frame with a bolt/screw.
- Install securing bolt/screw for guiding rubber cable and padding material loop to bracing hoop 3 for convertible top frame tensioning cable.
- Guide wiring for heated rear window and hinge through padding material.
- Pull rubber cable through loop on convertible top lining.
- Press padding material clamping beading into convertible top fabric retaining frame and secure with bolts/screws.

CONVERTIBLE TOP LINING, REMOVING AND INSTALLING

NOTE:

- **On models with an electro/hydraulic convertible top the motors for the rod flaps must remain connected to the wiring harness so that the convertible top may be moved hydraulically.**
- **Position side trim panels in the vehicle so that the rod flaps can move freely.**
- **The servo motors may be disconnected from the flap motor.**
- **Protect the vehicle against possible paintwork damage with suitable protective covers and textile reinforced adhesive tape.**

- Remove side trim panel.

  See **SIDE PANEL TRIM, REMOVING AND INSTALLING** .

- Remove head restraint cover

  See **BACKREST (CONVERTIBLE), REMOVING AND INSTALLING** .

- Open convertible top to half open position.
- Observe security rules, see **CONVERTIBLE TOP** .
- Remove roof leading edge trim, see **CONVERTIBLE TOP FRONT LATCH, ASSEMBLY OVERVIEW** .
- Remove bolts/screws -arrows- from roof leading edge.

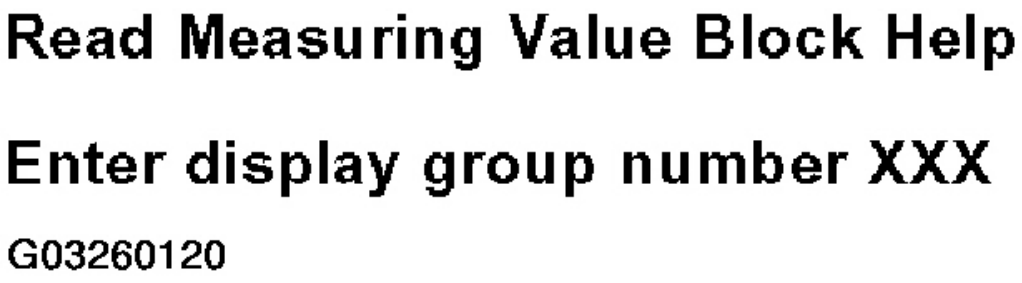


Fig. 58: Removing Bolts/Screws From Roof Leading Edge
Courtesy of VOLKSWAGEN OF AMERICA, INC.

WARNING: For security reasons, hold tension on elastic strap while removing screw

- Pull clamping beading -1- out of bracing hoop.

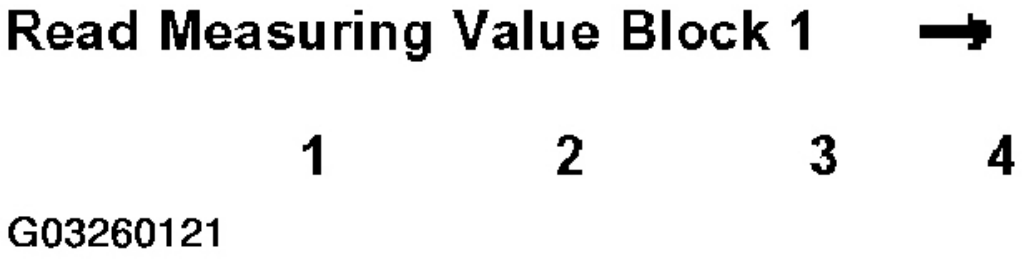


Fig. 59: Pulling Clamping Beading Out Of Bracing Hoop
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Pull clamping profile -1- off bracing hoop 2.

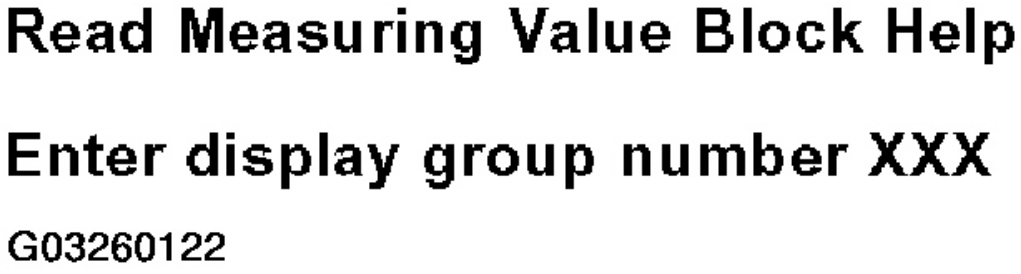
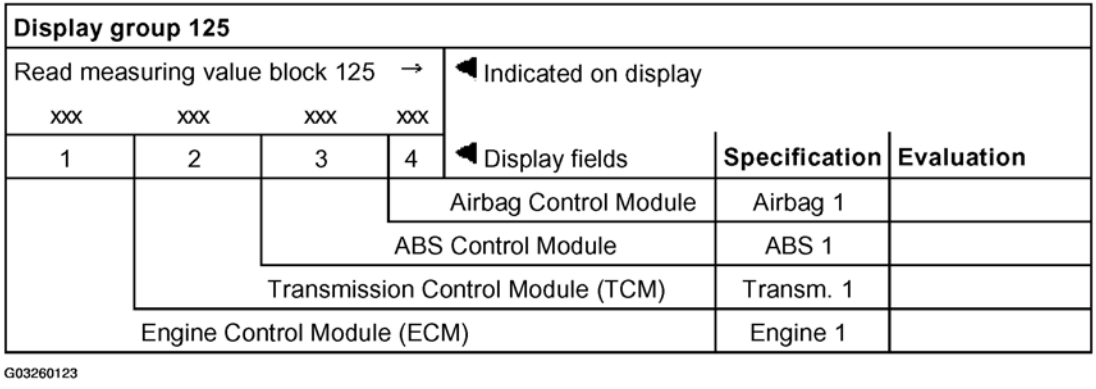


Fig. 60: Pulling Clamping Profile From Bracing Hoop
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Pull insert profile -1- off dart out of bracing hoop clamping profile.



Display group 125						
Read measuring value block 125 →				◄ Indicated on display		
xxx	xxx	xxx	xxx			
1	2	3	4	◄ Display fields	**Specification**	**Evaluation**
				Airbag Control Module	Airbag 1	
				ABS Control Module	ABS 1	
				Transmission Control Module (TCM)	Transm. 1	
				Engine Control Module (ECM)	Engine 1	

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Fig. 61: Pulling Insert Profile Off Dart Out Of Bracing Hoop Clamping Profile
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Pull darts between bracing hoop 3 and retaining frame.

Display group 126						
Read measuring value block 126 →				Indicated on display		
xxx	xxx	xxx	xxx			
1	2	3	4	Display fields	**Specification**	**Evaluation**
				empty[1)]	empty[1)]	
				empty[1)]	empty[1)]	
				Airbag Control Module	Airbag 1	
				empty[1)]	empty[1)]	

[1)] Display field blank

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Fig. 62: Pulling Darts Between Bracing Hoop And Retaining Frame
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Pull clamping profile -1- off bracing hoop 4.

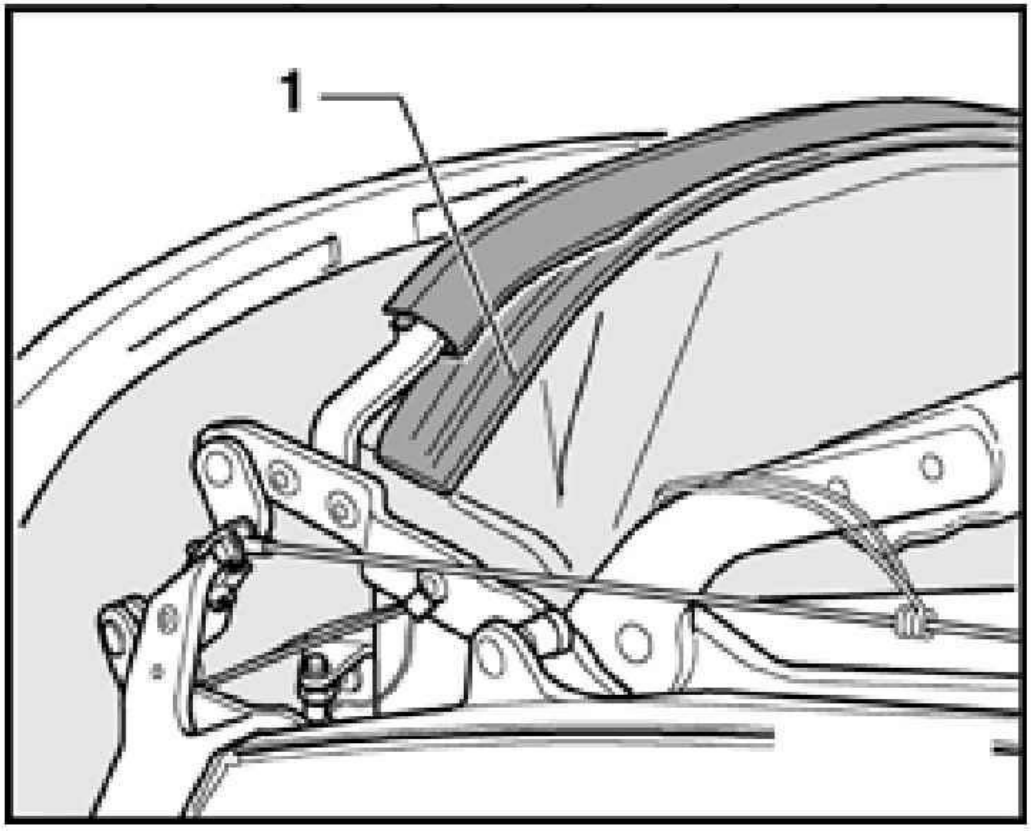

Fig. 63: Pulling Clamping Profile Off Bracing Hoop
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Pull off C-pillar roof frame seal in direction of -arrow-.

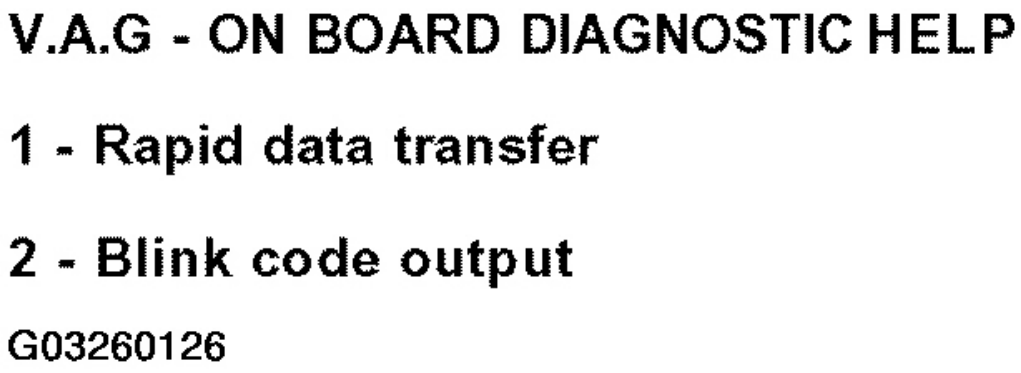

Fig. 64: Pulling Off C-Pillar Roof Frame Seal
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Pull convertible top fabric beading out of C-pillar channel in direction of -arrow-.

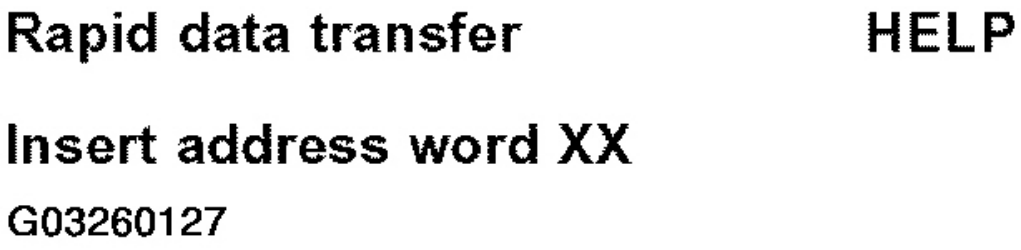

Fig. 65: Pulling Convertible Top Fabric Beading Out Of C-Pillar Channel
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Release convertible top lining from C-pillar bonding -1-.

Fig. 66: Releasing Convertible Top Lining From C-Pillar Bonding
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Drill out pop rivet for tensioning cable.

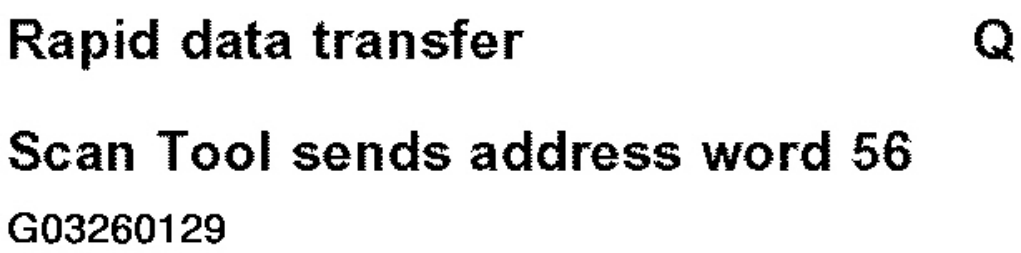

Fig. 67: Drilling Out Pop Rivet For Tensioning Cable
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Drill out pop rivet for retainer -1- for tensioning cable.
- Open convertible top completely

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Coding 06401 WSC 01230

G03260130

Fig. 68: Drilling Out Pop Rivet For Retainer For Tensioning Cable
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Drill out pop rivet for lower retainer -1- for tensioning cable.
- Close convertible top.

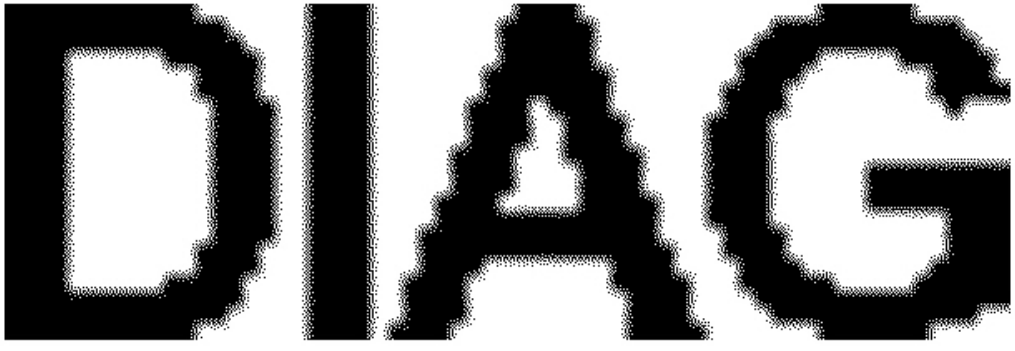

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Fig. 69: Drilling Out Pop Rivet For Lower Retainer For Tensioning Cable
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Pull convertible top lining -2- out of convertible top fabric retaining frame -1- in direction of -arrow-.

Fig. 70: Pulling Convertible Top Lining Out Of Convertible Top Fabric Retaining Frame
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Pull beading out of insert channel of rear window -arrow-.

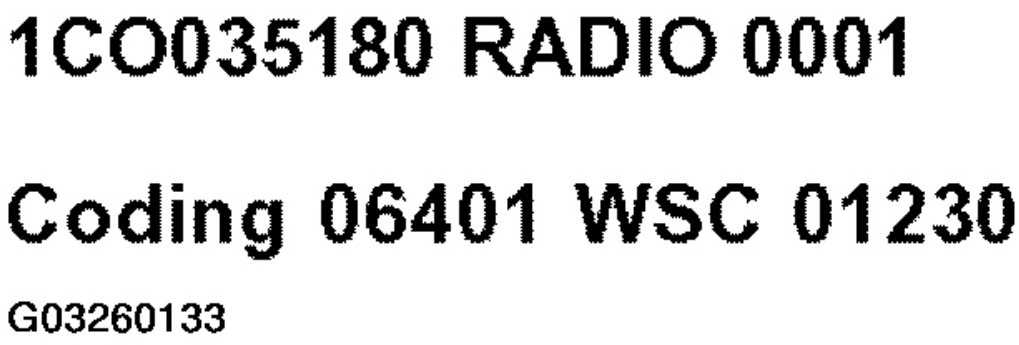

Fig. 71: Pulling Beading Out Of Insert Channel Of Rear Window
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Remove securing bolt from roof frame for convertible top lining rubber cable.

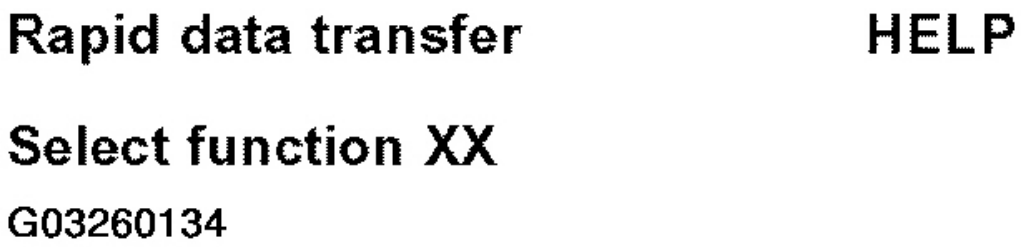

Fig. 72: Removing Securing Bolt From Roof Frame For Convertible Top Lining Rubber Cable
Courtesy of VOLKSWAGEN OF AMERICA, INC.

WARNING: For security reasons, hold tension on elastic strap while removing screw

- Pull rubber cable out of loop on convertible top lining.
- Remove screw securing convertible top elastic strap to convertible top retaining frame.
- Drill out pop rivet for roof spoiler cassette beading -arrow-.

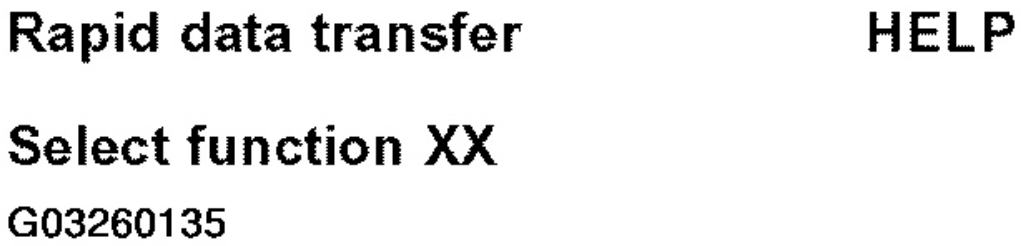

Fig. 73: Drilling Out Pop Rivet For Roof Spoiler Cassette Beading
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Pull beading out of roof spoiler cassette.

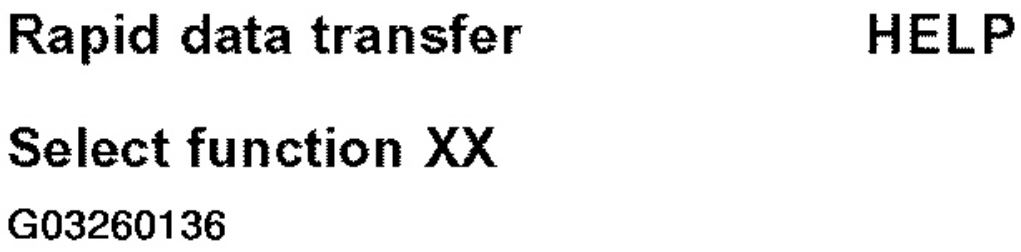

Fig. 74: Pulling Beading Out Of Roof Spoiler Cassette
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Pull slide -1- downward out of guide.

Installing

NOTE: Stick convertible top lining bonding strip onto C-pillar using double-sided adhesive tape.

Install in reverse order of removal.

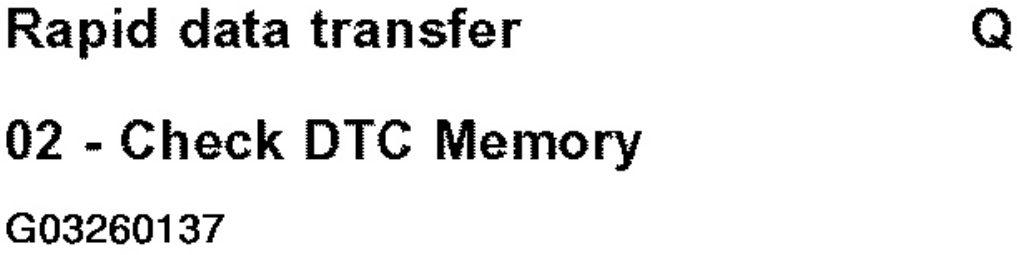

Fig. 75: Pulling Slide Downward Out Of Guide
Courtesy of VOLKSWAGEN OF AMERICA, INC.

HEADLINER TENSIONING SYSTEM, REMOVING AND INSTALLING

NOTE:

- **To comfortably remove or repair headliner tensioning system, and to reach all needed pieces open/close convertible top as needed (Use more**

or less a half open position)

- **Before opening or closing convertible top, observe that there is enough room above convertible top to operate it**
- **Each side of vehicle has a headliner tensioning system consisting of a rail, a guide rail headlining (with attached cables, deflectors and cable sockets) and a retaining plate (with attached elastic cable and cable socket)**

RAIL, REMOVING AND INSTALLING.

Removing

- Remove three rivets -arrows- and release rail guide

Fig. 76: Removing Rail Guide
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Remove rail from convertible top frame and from guide rail headlining

Installing

- Install in reverse order of removal

GUIDE RAIL HEADLINING, REMOVING AND INSTALLING.

Removing

- Remove rail. See **RAIL, REMOVING AND INSTALLING.** .
- Remove two rivets -1- and release cable sockets

Fig. 77: Removing Cable Sockets
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Remove guide rail headlining -4- from retaining plate in convertible top fabric -3-
- Remove rail -2- from guide rail headlining -4- by sliding both pieces apart

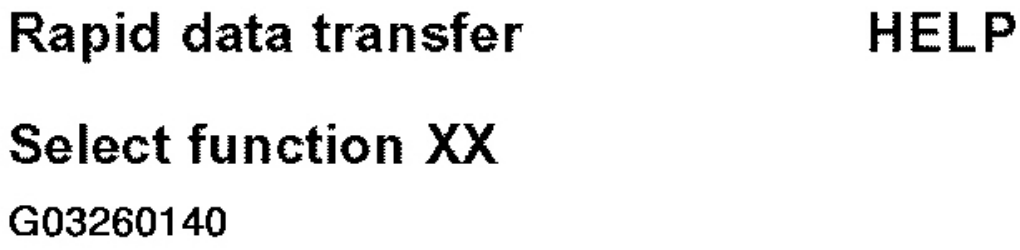

Fig. 78: Removing Guide Rail Headlining From Retaining Plate In Convertible Top Fabric
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Remove rivet from frame -arrow- (seen from inside of the vehicle) and attached deflector with cable and cable socket

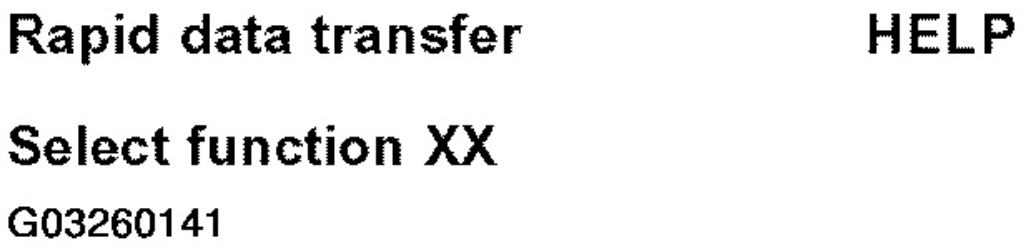

Fig. 79: Removing Rivet From Frame
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Remove previously removed cable with deflector and cable socket by passing it through fabric loops -arrows-

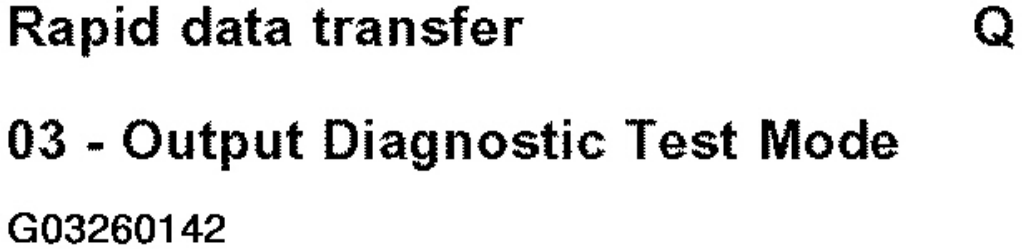

Fig. 80: Removing Cable With Deflector And Cable Socket
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Cut cable and pull it following direction of arrow, then dispose of it

NOTE: Make sure that deflectors -1- are not damaged

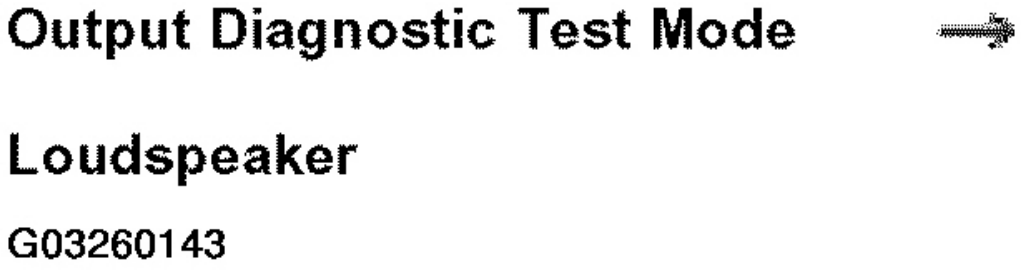

Fig. 81: Cutting Cable
Courtesy of VOLKSWAGEN OF AMERICA, INC.

Installing

- Untie knot -arrow- from new guide strip assembly

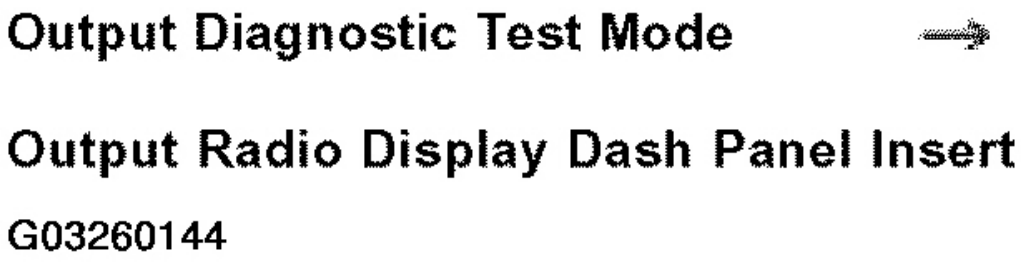

Fig. 82: Removing Knot From New Guide Strip Assembly
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Remove two plastic deflectors from cable and dispose of them
- Pass cable (previously untied) through deflector at highest position -1- and then through deflector at lowest position -2-

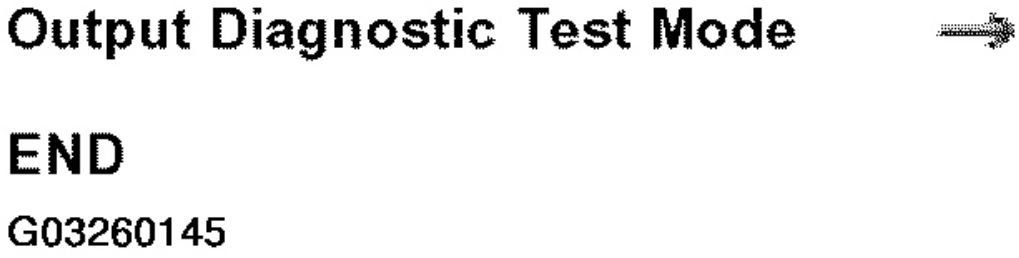

Fig. 83: Passing Cable Through Deflector At Highest Position And Deflector At Lowest Position
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Tie cable -arrow- (previously untied) into original position

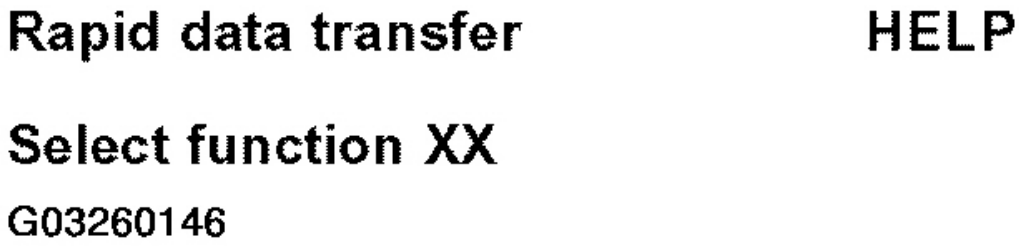

Fig. 84: Installing Cable Into Original Position
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Clip guide rail headlining -4- to retaining plate inside convertible top fabric -3-
- Slide rail -2- into guide rail headlining -4-
- Make sure to pass cable -1- behind the rail
- Make sure to pass cable -5- in front of rail

NOTE: Illustration shows cable arrangement from outside of the vehicle. See Fig. 85 .

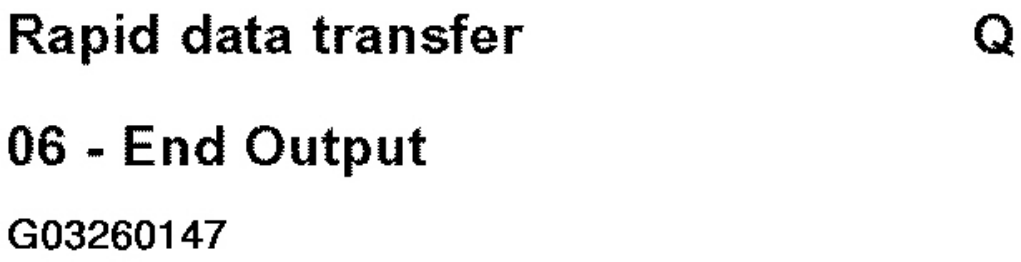

Fig. 85: Clipping Guide Rail Headlining To Retaining Plate Inside Convertible Top Fabric
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Attach two lower points of rail with rivets -arrow-

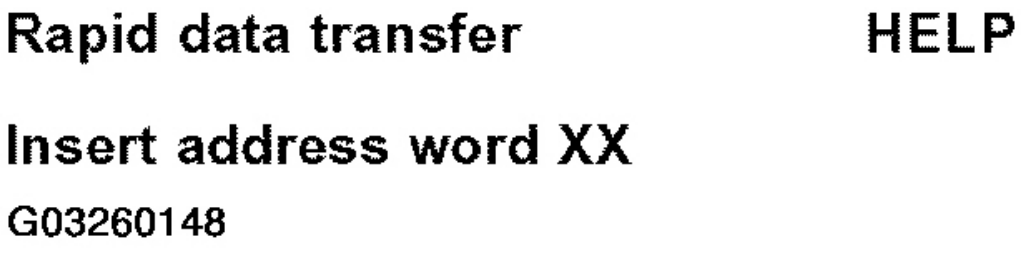

Fig. 86: Attaching Two Lower Points Of Rail With Rivets
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Use a rivet to attach cable socket of cable passed in front of rail -arrow-

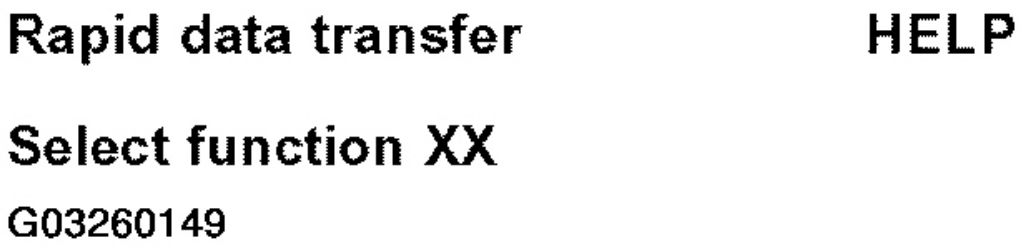

Fig. 87: Attaching Cable Socket Of Cable Passed In Front Of Rail
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Insert rivet into deflector as shown

CAUTION:
- **Make sure that rivet is positioned into deflector as shown, otherw malfunction may occur.**

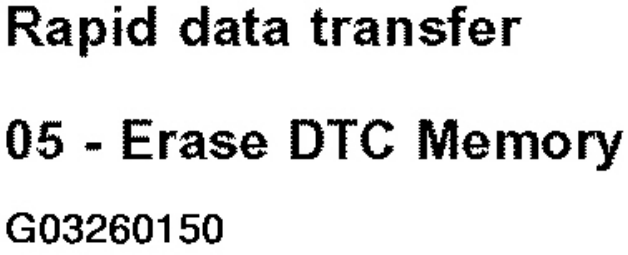

Fig. 88: Inserting Rivet Into Deflector
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Rivet deflector -arrow- to frame

CAUTION:
- **Make sure that the deflector is riveted to frame as shown, otherw malfunction may occur.**

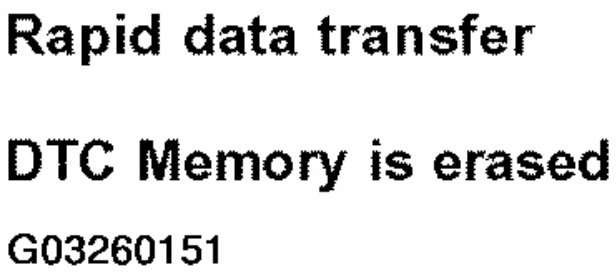

Fig. 89: Riveting Deflector To Frame
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Pass cable -2- behind crossrail -1- and over extended element -3-

NOTE: When observing frame from outside vehicle, make sure to pass cable through highest and rearmost vertex

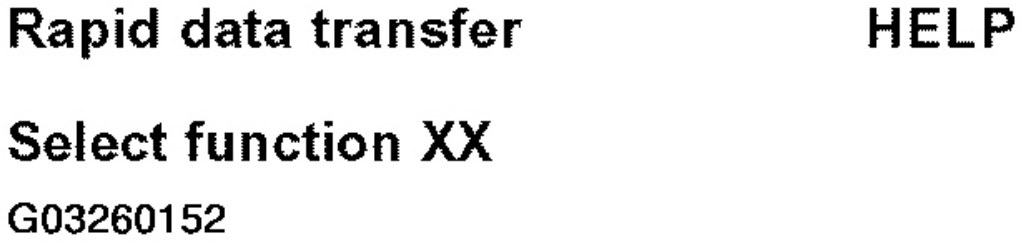

Fig. 90: Passing Cable Behind Crossrail And Over Extended Element
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Pass cable -1- between other cable previously attached -2- and frame -3-
- Rivet sliding cable socket -4- to frame

NOTE: Rivet that attaches sliding cable socket also attaches third position of rail

- Rivet non-sliding cable socket -5- to frame

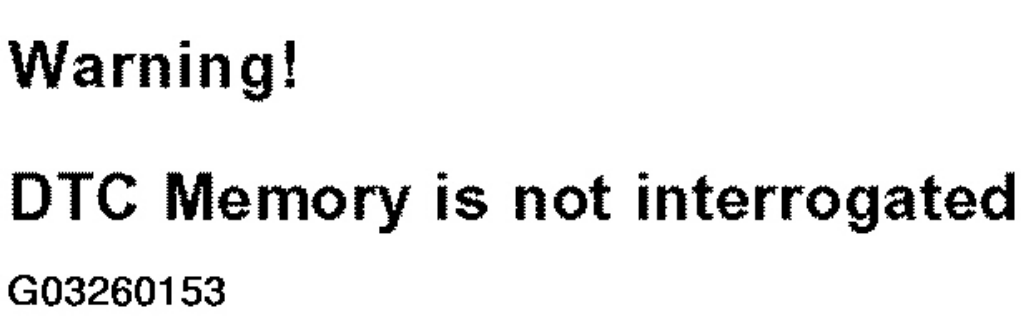

Fig. 91: Riveting Sliding Cable Socket To Frame
Courtesy of VOLKSWAGEN OF AMERICA, INC.

RETAINING PLATE, REMOVING AND INSTALLING

Removing

- Remove Roof leading edge trim.

  See **Convertible top front latch, assembly overview**

- Remove retaining plate from guide rail headlining
- Push retaining clips inside Convertible top fabric -arrows-.

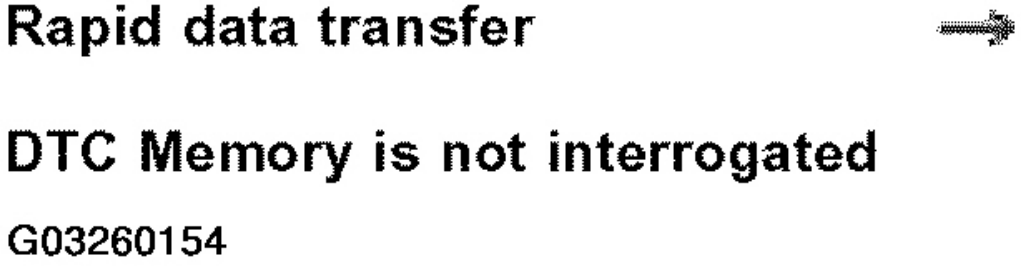

Fig. 92: Pushing Retaining Clips Inside Convertible Top Fabric
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Unscrew retaining screw and pull elastic cable -arrow-.

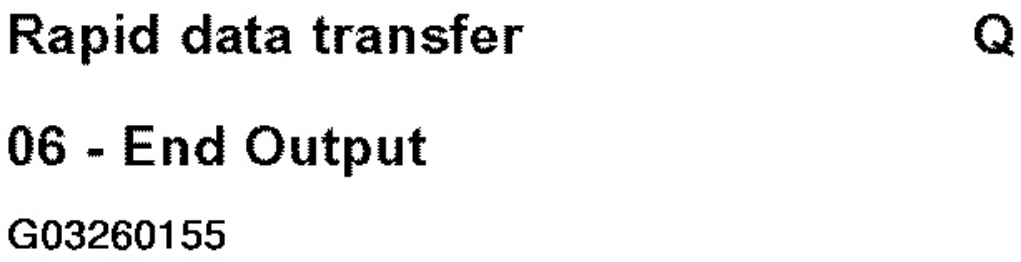

Fig. 93: Removing Retaining Screw And Pulling Elastic Cable
Courtesy of VOLKSWAGEN OF AMERICA, INC.

Installing

- Install in reverse order of removal

NOTE:

- **To ease installing procedure, a strong 3 feet long string can be tied to the cable socket before introducing the retaining plate and fitting it to the convertible top's fabric**
- **After installing the retaining plate to the convertible top fabric and attaching retaining plate to rail guide headlining, pull tied cable until cable socket is reached**
- **After screwing cable socket, cut the string.**

HEADLINER, REMOVING AND INSTALLING.

Removing

NOTE: **To comfortably remove or repair headliners and to reach all needed pieces open/close convertible top as needed (Use more or less a half open position).**

- Remove rivet -1-.
- Remove retaining plate form rail by pushing it -arrow-.
- Unclip retaining plate from convertible top -2- by pulling both pieces apart.
- Untie knot at retaining plate and release cable by pulling it through guides -3-.

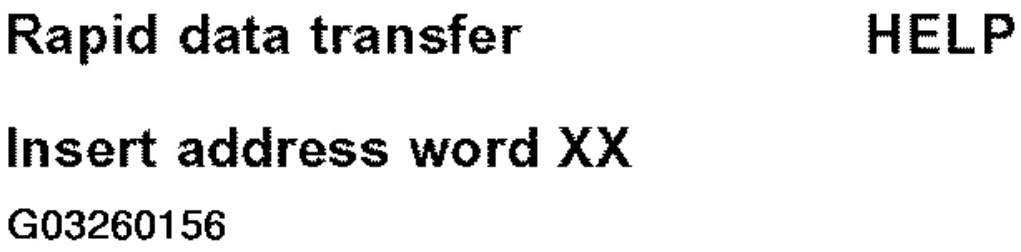

Fig. 94: Removing Retaining Plate Form Rail
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Remove three rivets -1- and release rail guide.

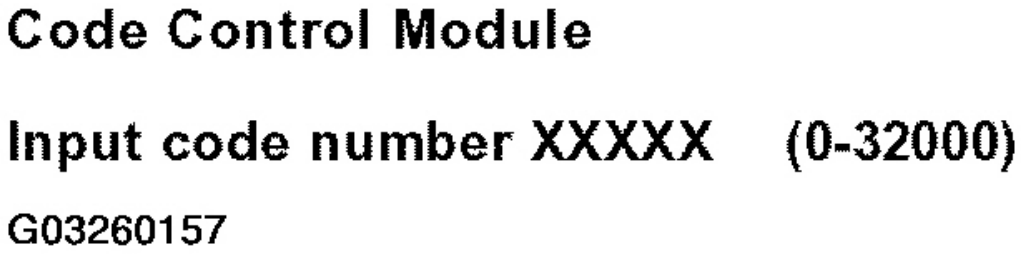

Fig. 95: Removing Rivets And Release Rail Guide
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Remove Roof leading edge trim.

  See **Convertible top front latch, assembly overview**

- Push retaining clips inside Convertible top fabric -arrows-.

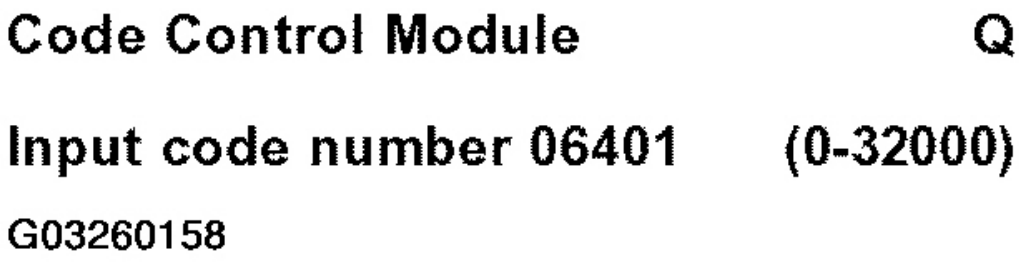

Fig. 96: Pushing Retaining Clips Inside Convertible Top Fabric
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Unscrew retaining screw and pull wire -arrow-.

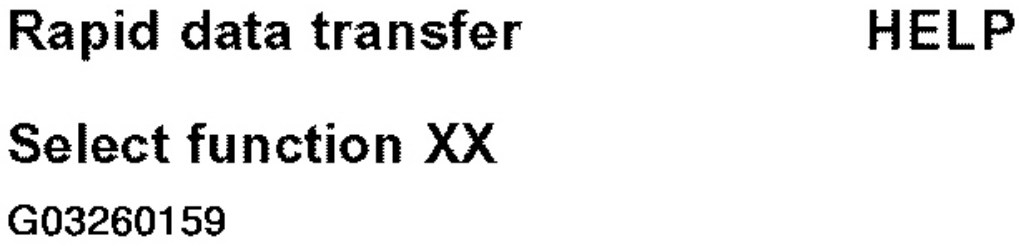

Fig. 97: Removing Retaining Screw And Pull Wire
Courtesy of VOLKSWAGEN OF AMERICA, INC.

Installing

- Install in reverse order of removal.

CONVERTIBLE TOP FRONT LATCH, ASSEMBLY OVERVIEW

NOTE: The following list refers to items in Fig. 98 .

1. **Rods**
   - Components 1, 2, 3 & 4 confirm the Front retaining catch, see **CONVERTIBLE TOP, ASSEMBLY OVERVIEW** .

2. **Circlip**
    - Components 1, 2, 3 & 4 confirm the Front retaining catch, see **CONVERTIBLE TOP, ASSEMBLY OVERVIEW** .
3. **Plate**
    - Components 1, 2, 3 & 4 confirm the Front retaining catch, see **CONVERTIBLE TOP, ASSEMBLY OVERVIEW** .
4. **Bolt/screw**
    - 10 N.m
    - Components 1, 2, 3 & 4 confirm the Front retaining catch, see **CONVERTIBLE TOP, ASSEMBLY OVERVIEW** .
5. **Trim**
    - Removing:
        - Remove circlip -6-
        - Remove pin -8-.
6. **Circlip**
7. **Bolt/screw**
    - 10 N.m.
8. **Pin**
9. **Hex socket head bolt/screw**
10. **Handle**
    - Removing:
        - Remove Hex socket head bolt/screw from side.
11. **Clip**
12. **Clip**
13. **Roof leading edge trim**
    - Removing:
        - Unclip front and rear.
        - Turn through 90 and take off over handle -10-.

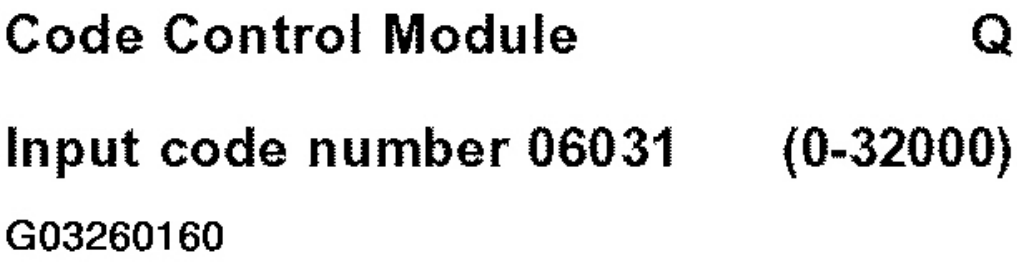

Fig. 98: Exploded View Of Convertible Top Front Latch Assembly (1 Of 2)
Courtesy of VOLKSWAGEN OF AMERICA, INC.

CONVERTIBLE TOP FRONT CATCH, ASSEMBLY OVERVIEW

NOTE: The following list refers to items in Fig. 99 .

1. **Roof cross member**
2. **Bolt/screw**
3. **Micro switch**
4. **Plate**
5. **Convertible top catch**
6. **Bolt/screw**
    - 10 N.m.

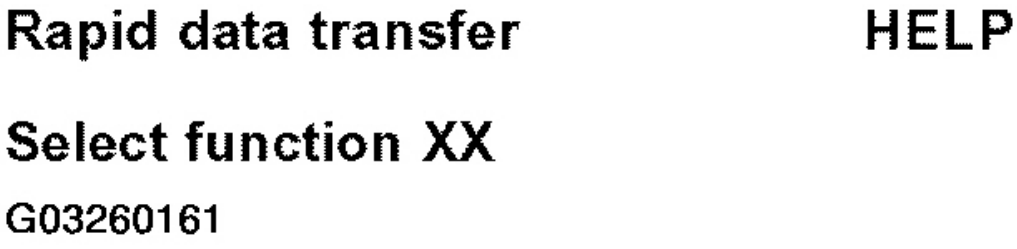

Fig. 99: Exploded View Of Convertible Top Front Latch Assembly (2 Of 2)
Courtesy of VOLKSWAGEN OF AMERICA, INC.

CONVERTIBLE TOP FRONT CATCH, REMOVING AND INSTALLING

Removing

- Remove roof member cross member trim.

  See **ROOF CROSS MEMBER INNER AND OUTER TRIM (CONVETIBLE) REMOVING AND INSTALLING** .

- Disconnect micro switch connection from right side.
- Remove bolt/screw -6-.

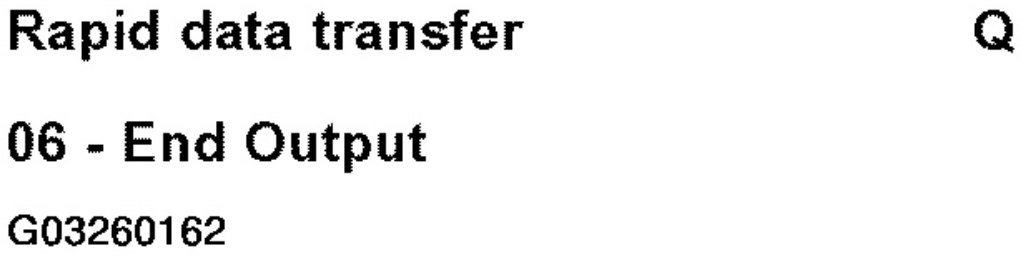

Fig. 100: Exploded View Of Convertible Top Front Catch Assembly
Courtesy of VOLKSWAGEN OF AMERICA, INC.

Installing

Installation is reverse of removal.

NOTE:

- **The convertible top can be adjusted within the elongated holes for the convertible top catch -5-.**
- **The convertible top must lie centrally on the roof cross member and lie evenly at the A-pillars.**

Rapid data transfer HELP

Insert address word XX

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Fig. 101: Exploded View Of Convertible Top Front Catch Assembly
Courtesy of VOLKSWAGEN OF AMERICA, INC.

CONVERTIBLE TOP REAR CATCH, ASSEMBLY OVERVIEW

NOTE: The following list refers to items in Fig. 102 .

1. **Convertible top catch**
   - Removing:
     - Remove side trim panel.

       See **SIDE PANEL TRIM, REMOVING AND INSTALLING**

     - Open convertible top or work from the inside of the vehicle with top closed.
     - Disconnect electrical connection -6-.
     - Remove bolts/screws -3-.
   - Installing:
     - Install bolt/screw -3- and tighten lightly.
     - Connect electrical connection -6-.
     - Align module for convertible top catch.
     - Close convertible top if decided to open it previously.
     - When convertible top has engaged tighten bolts/screw -3-.
     - Then perform functional check.
2. **Washer**
   - Qty. 7.
3. **Bolt/screw**
   - 10 N.m.
   - Qty. 7.

4. **Cable for emergency release**
5. **Servo motor**
6. **Electrical connection**
7. **Micro switch (convertible top closed)**
8. **Micro switch (convertible top open)**

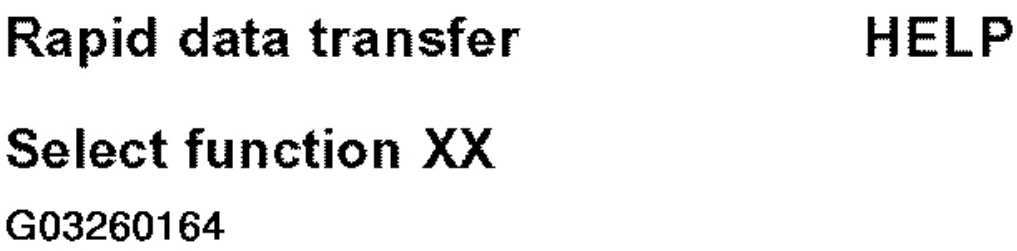


Fig. 102: Removing Convertible Top Rear Catch Assembly
Courtesy of VOLKSWAGEN OF AMERICA, INC.

ELECTRO/HYDRAULIC CONVERTIBLE TOP, COMPONENTS

NOTE: The following list refers to items in Fig. 103 .

1. **Right hydraulic cylinder**
   - Removing, see **HYDRAULIC CYLINDER, ASSEMBLY OVERVIEW** .
2. **Convertible Top Open Position Switch -F171-**
   - Installed only on right-hand side.
   - Unclip from hydraulic cylinder -1-.
3. **Hydraulic hoses**
   - Removing and installing, see **HYDRAULIC HOSES** .
4. **Convertible Top Control Module -J256-**
   - On right in luggage compartment.
   - Further information, see appropriate WIRING DIAGRAM article
5. **Left hydraulic cylinder**
   - Removing, see **HYDRAULIC CYLINDER, ASSEMBLY OVERVIEW** .
6. **Plug**
7. **Oil filler plug**
   - 5 N.m.

8. **Hydraulic pump**
   - Removing and installing, see **HYDRAULIC PUMP, REMOVING AND INSTALLING** .
9. **Bypass valve**
   - Unscrewing the bypass valve releases pressure in the hydraulic system and the convertible top can be operated by hand.
10. **Fluid level indicator**
    - Hydraulic oil level must lie between min. and max. marks when convertible top is open.
11. **Right Contact Switch (Cover Installed)-F156- or Left Contact Switch (Cover Installed) -F155- for convertible top**
    - Qty. 2.
12. **Convertible Top Operation Switch -E137-**
    - Installed in center console.

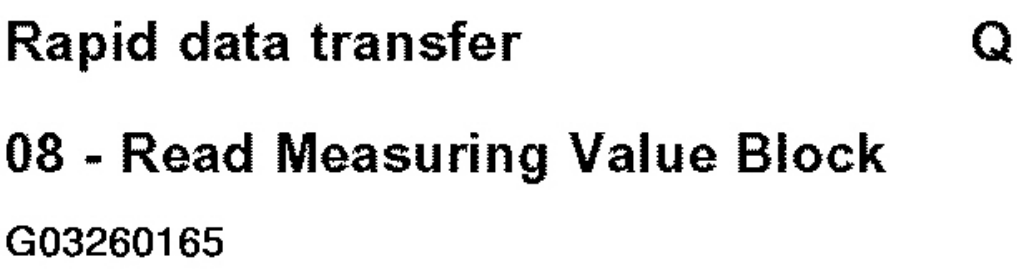


Fig. 103: Locating Electro/Hydraulic Convertible Top Components
Courtesy of VOLKSWAGEN OF AMERICA, INC.

HYDRAULIC SYSTEM, FILLING AND BLEEDING

If the hydraulic pump is overloaded, a thermal fuse breaks the current circuit and the system is switched off for a maximum of 35 seconds. Then the system is fully functional again.

The bypass valve on the hydraulic cylinder is located behind a rubber cover behind the left luggage compartment side panel trim. Turning the bypass valve counterclockwise releases pressure in the system and the convertible top can be operated manually.

Filling hydraulic system

NOTE:
- **Electro/hydraulic convertible top is a closed hydraulic system. Filling is normally only required after opening the hydraulic circuit (e.g. after replacing a part).**

- **For reasons of stroke and the displacing effect of the piston rod, the hydraulic oil level must only be checked when the convertible top is open.**
- **Observe safety instructions for electrical convertible top, see CONVERTIBLE TOP .**

WARNING: Do not fill system above "max." mark, otherwise the pressure in the system may be high enough to damage the system.

- Removing left-hand trim in luggage compartment

  See **LUGGAGE COMPARTMENT TRIM (CONVERTIBLE), REMOVING AND INSTALLING** .

- The convertible top must be open to fill the system as the actual level can only be determined in this condition.
- Remove oil filler plug -1-.
- Oil for convertible top: G 002 000.
- Top-off hydraulic oil until the oil level is between the min. and max. marks -2-.
- An oil can is suitable for filling the hydraulic oil.
- Oil can must only be used for this purpose, this prevents hydraulic oil being contaminated by other oils.
- Tighten oil filler plug -1- (5 N.m).

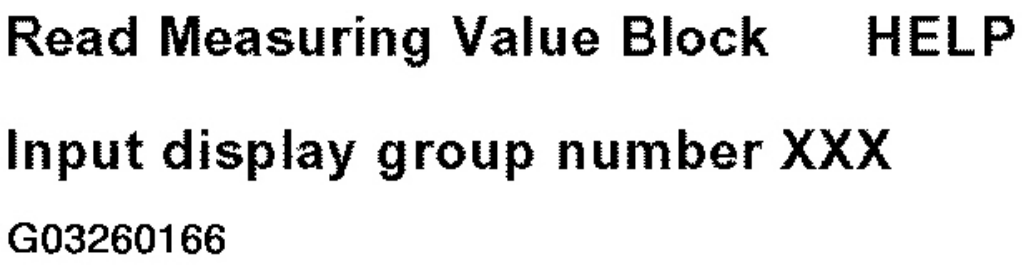


Fig. 104: Removing Oil Filler Plug
Courtesy of VOLKSWAGEN OF AMERICA, INC.

Bleeding hydraulic system

Hydraulic system is self-bleeding. System is bled by operating system several times.

- Loosen oil filler plug -1-.
- Switch ignition on and off again, keep ignition key in ignition lock.

- Operate convertible top switch and open and close top 4 to 5 times.
- System bleeds itself when opening and closing the convertible top several times.
- Convertible top must open and close smoothly without juddering.
- Oil level must be between min. and max. marks -2- when convertible top is open.
- Tighten oil filler plug -1- (5 N.m).

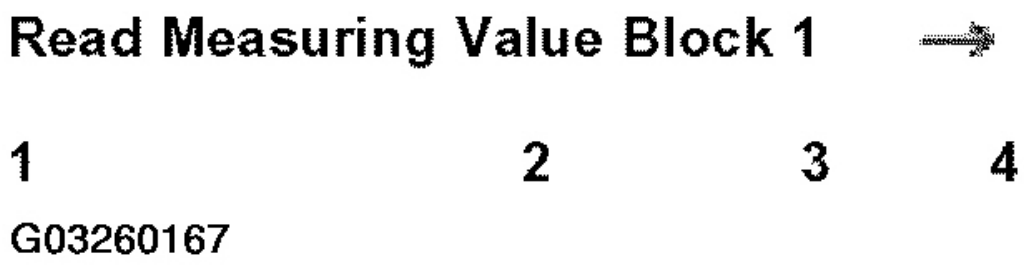


Fig. 105: Installing Oil Filler Plug
Courtesy of VOLKSWAGEN OF AMERICA, INC.

HYDRAULIC PUMP, REMOVING AND INSTALLING

WARNING:

- **The hydraulic system reacts with extreme sensitivity to all types of contaminants.**
- **As soon as the system is opened the respective component must be covered, to prevent dirt entering the hydraulic system.**
- **Before working on electrical system: Disconnect battery Ground (GND) strap.**

Removing

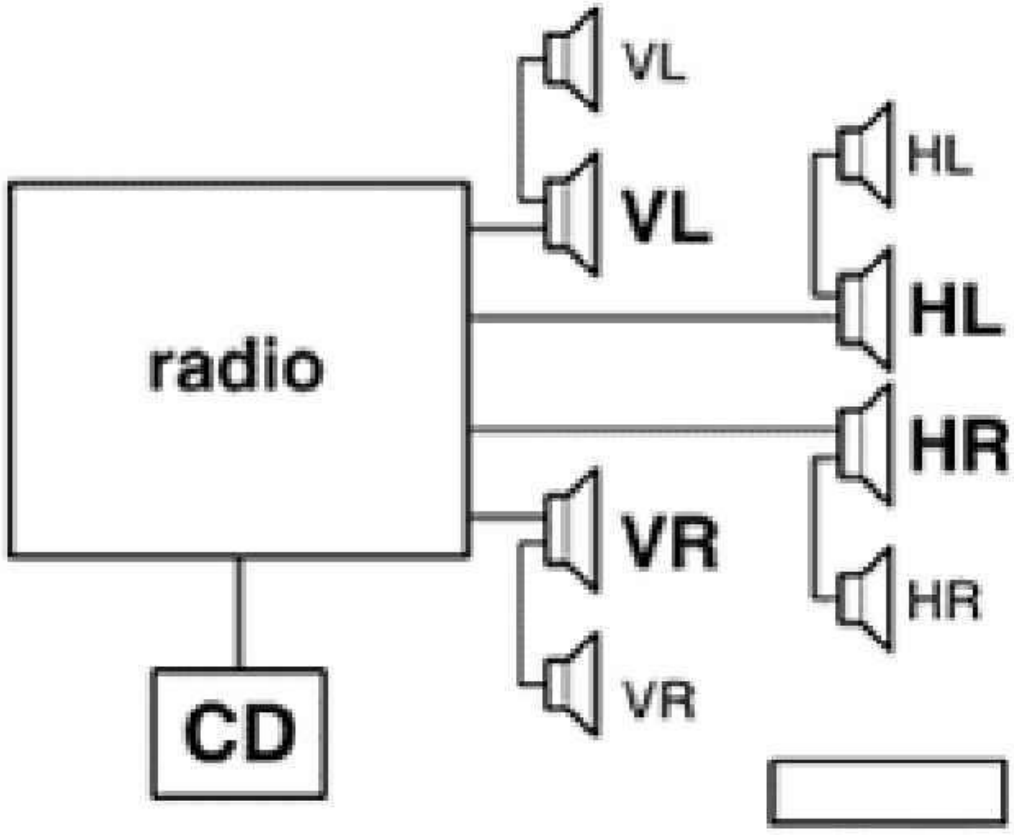
NOTE:

- **Obtain radio unit code before disconnecting battery.**

- Disconnect the battery Ground (GND) strap observing all cautions. See **BATTERY DISCONNECTING/RECONNECTING PRECAUTIONS** .
- Removing left-hand trim in luggage compartment

  See **LUGGAGE COMPARTMENT TRIM (CONVERTIBLE), REMOVING AND INSTALLING** .

- Disconnect electrical connection from Convertible Top Hydraulic Pump -V118- -5-



VL = Left front

HL = Left rear

VR = Right front

HR = Right rear

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Fig. 106: Disconnecting Electrical Connection From Convertible Top Hydraulic Pump -V118
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Loosen bypass valve -1- to release any residual pressure and then retighten.
- Mark hydraulic lines -3- before removing. Undo Torx(R) screws -2- (7 N.m).
- Pull hydraulic lines -3- carefully out from openings.
- Remove combi-nut -4- (5 N.m).

Installing

Install in reverse order of removal.

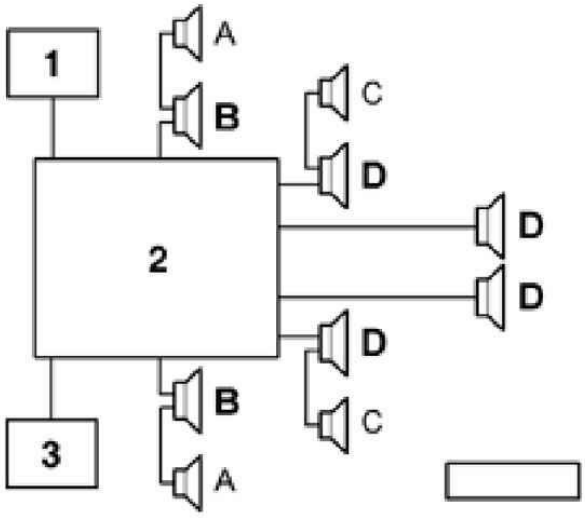
NOTE:

- **Make sure hydraulic lines are installed in proper position on pump..**
- **Make sure O-rings are not damaged and are seat correctly when installing hydraulic lines.**
- **Make sure there is no debris on pump in area of hydraulic line connections.**
- **After installing the hydraulic pump the system must be filled again and bled., see HYDRAULIC SYSTEM, FILLING AND BLEEDING .**
- **Reconnect battery, make sure the vehicle equipment (radio, clock, electric windows) is checked as per Workshop manual and/or Owner's manual.**

HYDRAULIC PUMP IMPELLER, ASSEMBLY OVERVIEW

NOTE: The following list refers to items in Fig. 107 .

1. **Hydraulic pump motor**
   - Removing and installing, see **Hydraulic pump, removing and installing** .
2. **Torx(R) screws**
   - Always replace.
   - 5 N.m.
3. **Pump impeller**
4. **O-ring**
   - Always replace.
   - O-ring is included in repair kit.
5. **Hydraulic pump**



1 - Amplifier

2 - Radio Monsoon

3 - CD player

A - Domed treble loudspeaker in inner plenum chamber cover

B - Bass loudspeaker in inner plenum chamber cover

C - Domed treble loudspeaker in A-pillar trim

D - Bass loudspeaker, front and rear in side panel trim

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Fig. 107: Identifying Hydraulic Pump Impeller Assembly
Courtesy of VOLKSWAGEN OF AMERICA, INC.

HYDRAULIC PUMP IMPELLER, REMOVING AND INSTALLING

Removing

- Remove hydraulic pump, see **HYDRAULIC PUMP, REMOVING AND INSTALLING** .

NOTE:

- **Hydraulic system reacts with extreme sensitivity to all types of contaminants.**
- **Components must be covered immediately as the system is opened.**
- **Place a suitable container under the pump to collect leaking oil before dismantling the hydraulic unit.**

- Place hydraulic unit with reservoir facing downward vertically in a suitable container and secure it against tipping.
- Open bypass valve so that the hydraulic oil can flow from the pump unit into the container.
- Remove Torx(R) screws -2- and pull motor -1- off hydraulic pump.

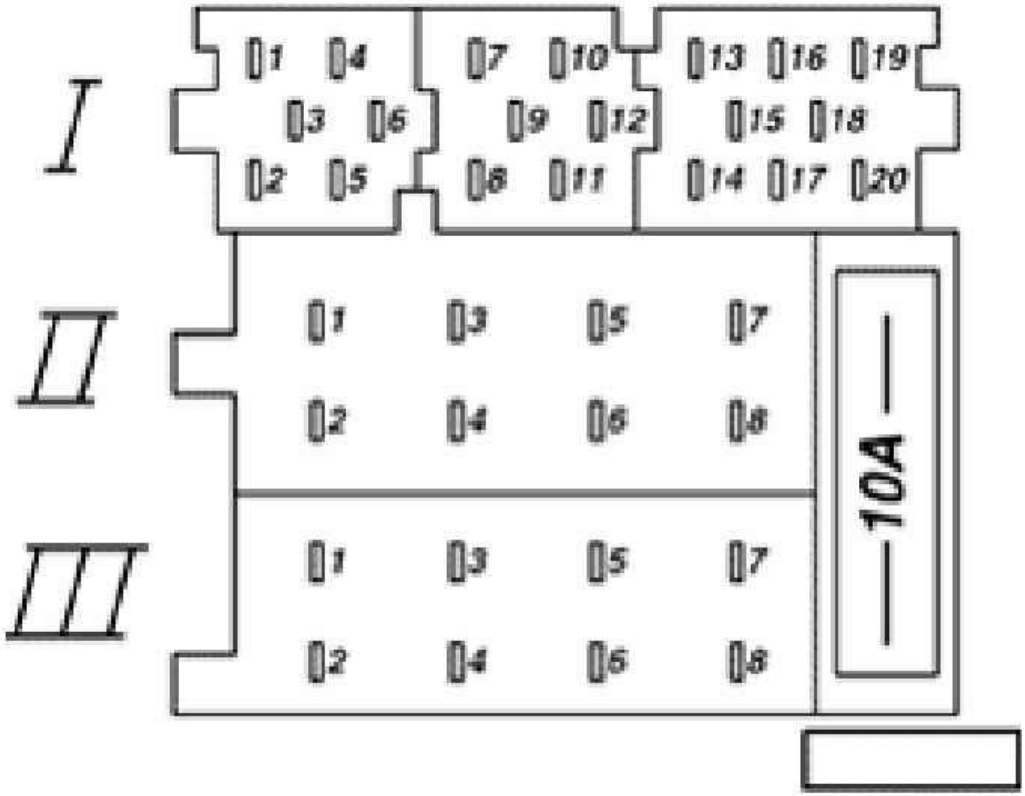

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Fig. 108: Removing Hydraulic Pump Impeller
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Pull pump impeller -1- off drive shaft -2-.

- Remove metal tongue -3- from pump housing (Unit will be damaged if metal tongue remains in pump housing).

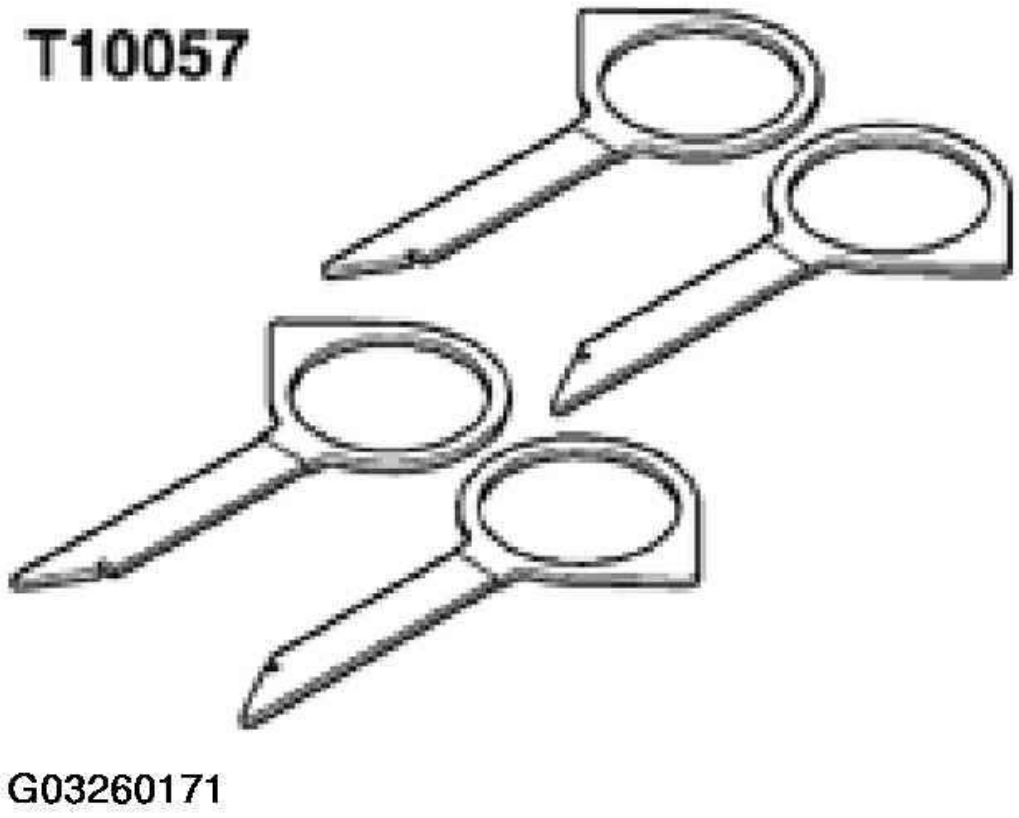

Fig. 109: Removing Pump Impeller From Drive Shaft
Courtesy of VOLKSWAGEN OF AMERICA, INC.

Metal tongue -3- is no longer required.

Installing

- Press new pump impeller -1- onto drive shaft -2-

  Pump impeller fits in one position only on drive shaft.

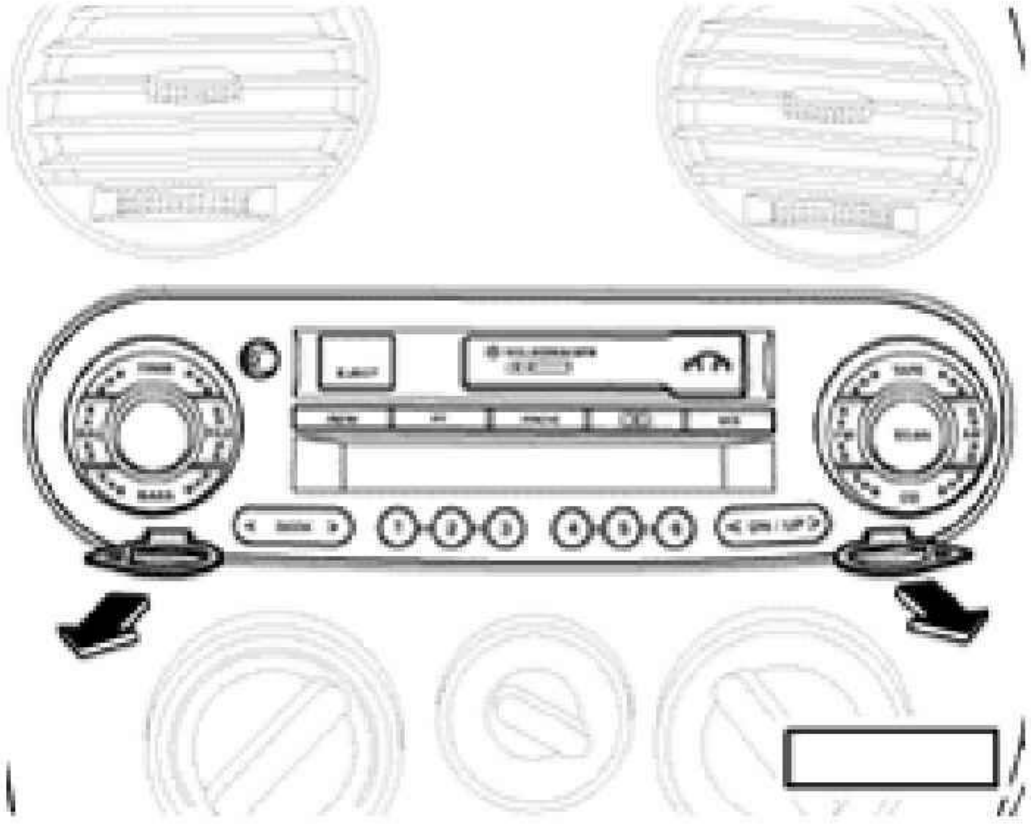

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Fig. 110: Installing Pump Impeller Onto Drive Shaft
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Pull old seal -4- off hydraulic pump -5- and replace it with a new seal.
- Position motor -1- with new pump impeller onto hydraulic pump -5- and secure using new screws -2- (screws -2- are micro-encapsulated, torque setting 5 N.m).

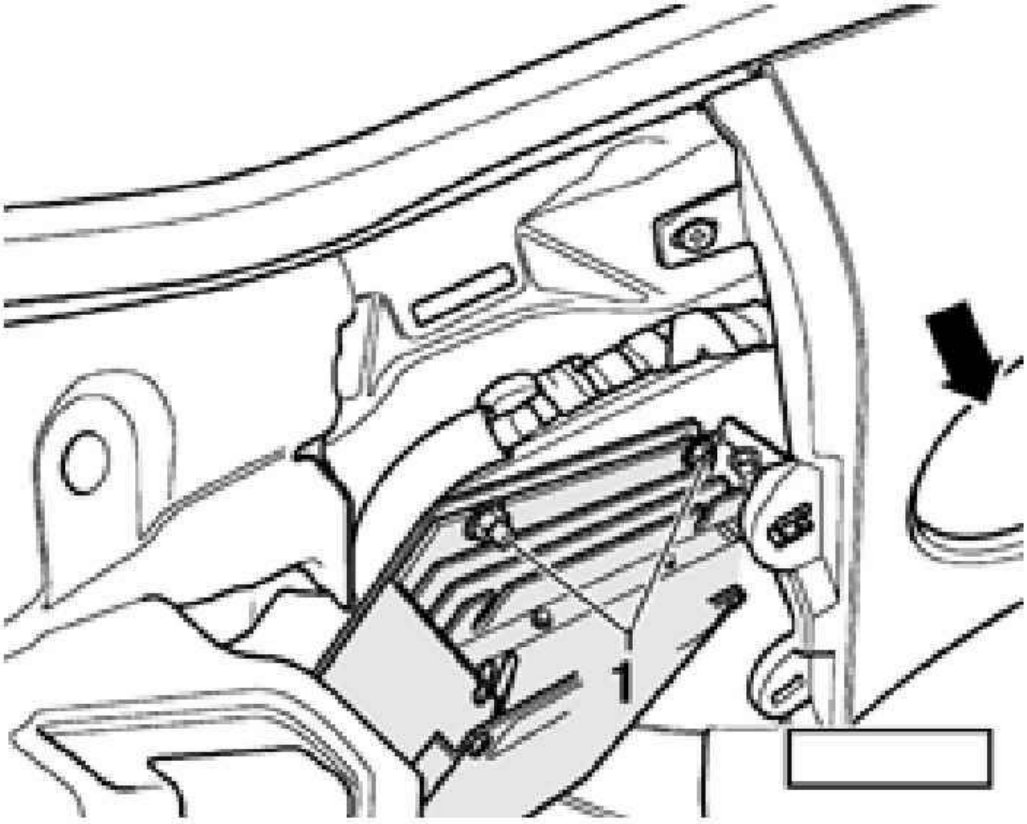


Fig. 111: Removing Seal From Hydraulic Pump
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Install hydraulic pump, see **HYDRAULIC PUMP, REMOVING AND INSTALLING** .
- Fill hydraulic system and bleed, see **HYDRAULIC SYSTEM, FILLING AND BLEEDING** .

OIL RESERVOIR, ASSEMBLY OVERVIEW

- Remove hydraulic pump. See **HYDRAULIC PUMP, REMOVING AND INSTALLING** .

NOTE: The following list refers to items in Fig. 112 .

1. **Torx(R) screws**
   - 2 N.m.
   - Always replace screws.

2. **Oil reservoir**
3. **O-ring**
    - Always replace.
    - O-ring is included in repair kit.
4. **Hydraulic pump**

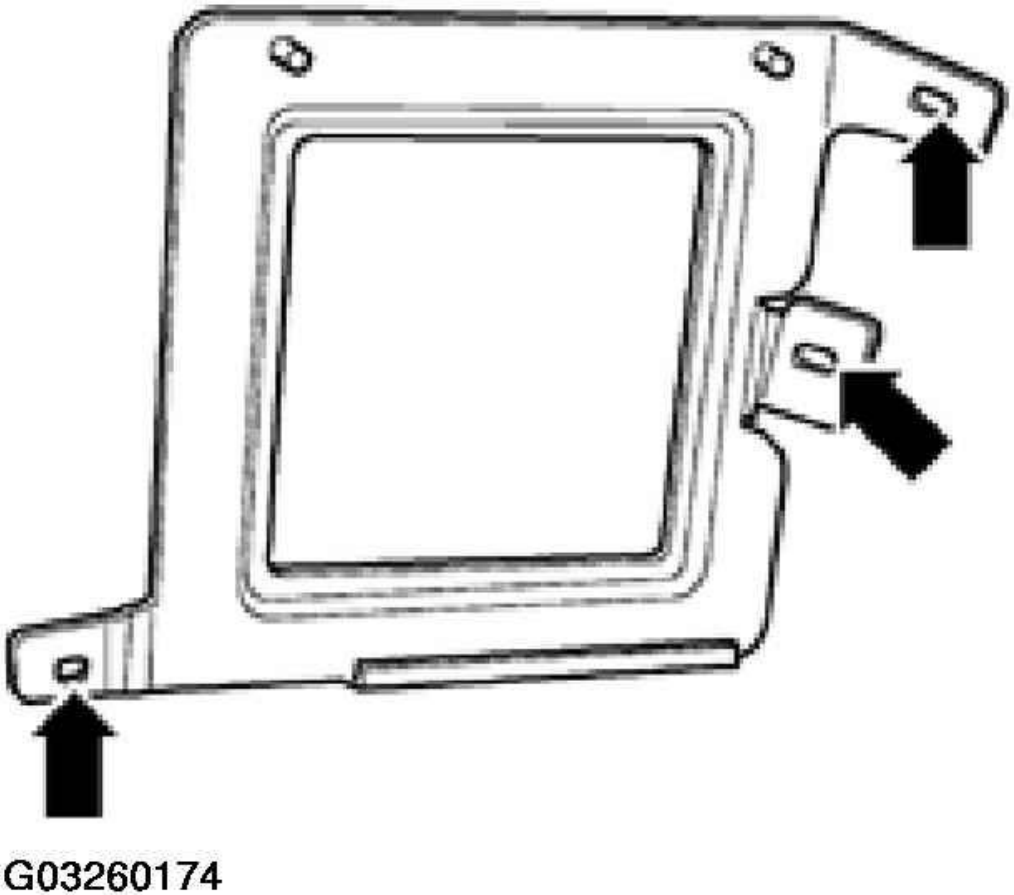


Fig. 112: Identifying Oil Reservoir Assembly
Courtesy of VOLKSWAGEN OF AMERICA, INC.

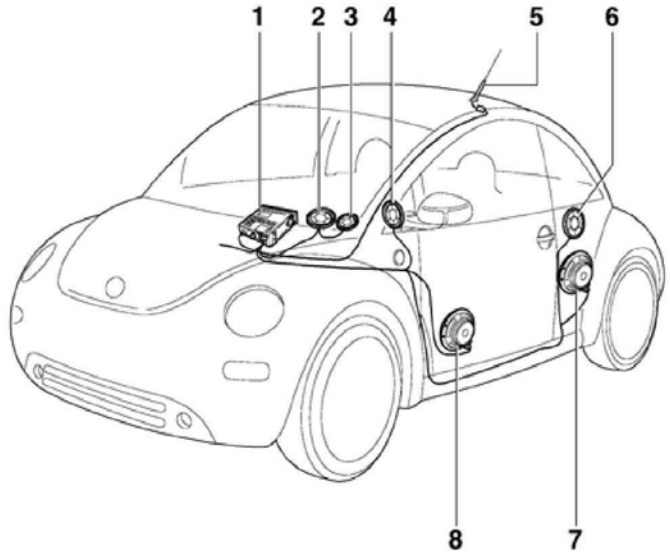
OIL RESERVOIR, REMOVING AND INSTALLING

Removing

WARNING: Place a container under pump to collect oil leaking out, before

disassembling the reservoir.

- To disassemble, loosen Torx(R) screws -1- and collect oil that runs out.
- Remove Torx(R) screws -1- and remove oil reservoir carefully.



1 - Radio

- In center console
- Removing and installing ⇒ Page 91-10

2 - Bass loudspeaker (with Monsoon only)

- In inner plenum under cover
- Removing ⇒ Page 91-22

3 - Domed treble loudspeaker (with Monsoon only)

- In inner plenum under covcer
- Removing ⇒ Page 91-22

4 - Domed treble loudspeaker

- In A-pillar
- Removing ⇒ Page 91-20

5 - Roof antenna

- Amplified mast type antenna mounted on roof ⇒ Page 91-29

6 - Not applicable

7 - Bass loudspeaker

- In rear side panel
- Removing and installing ⇒ Page 91-21

8 - Bass loudspeaker

- In front door
- Removing and instaling ⇒ Page 91-21

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Fig. 113: Removing Oil Reservoir
Courtesy of VOLKSWAGEN OF AMERICA, INC.

Installing

- Moisten O-ring -3- with hydraulic oil G 002 000 and insert into pump housing groove.
- Moisten inside of oil reservoir, in area of O-ring with hydraulic oil.
- To assemble, slide oil reservoir on with a turning motion and tighten using new Torx(R) screws -1-. (2 N.m).

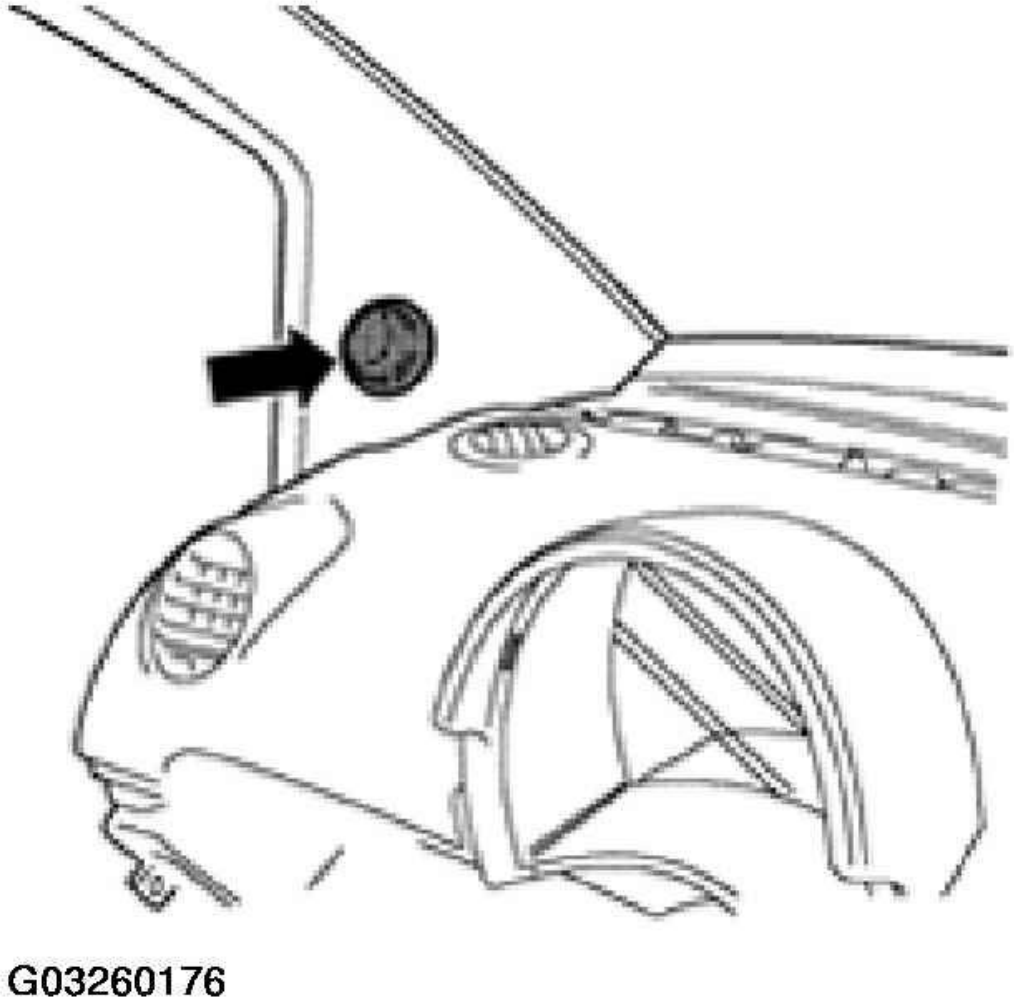

Fig. 114: Installing Oil Reservoir
Courtesy of VOLKSWAGEN OF AMERICA, INC.

WARNING: Always torque reservoir bolts to specification, otherwise oil reservoir will be damaged.

- Install hydraulic pump, see **HYDRAULIC PUMP, REMOVING AND INSTALLING** .
- Fill hydraulic system and bleed, see **HYDRAULIC SYSTEM, FILLING AND BLEEDING** .

HYDRAULIC CYLINDER, ASSEMBLY OVERVIEW

WARNING: The hydraulic system reacts with extreme sensitivity to all types of contaminants. As soon as the system is opened the respective component must be covered, to prevent dirt entering the hydraulic system.

NOTE: The following list refers to items in Fig. 115 .

1. **Hydraulic cylinder**
2. **Hydraulic hoses**
3. **Circlip**
4. **Hydraulic hoses**
5. **Retaining clip**
6. **Retainer**
7. **Pin**
8. **Bolt/screw**
   - 23 N.m
   - Qty. 2
9. **Convertible Top Position Switch -F171-**
   - Installed only on right-hand side.
10. **Screwdriver**
11. **Ball head**
12. **Cover**
13. **Securing clip**
14. **Piston rod**

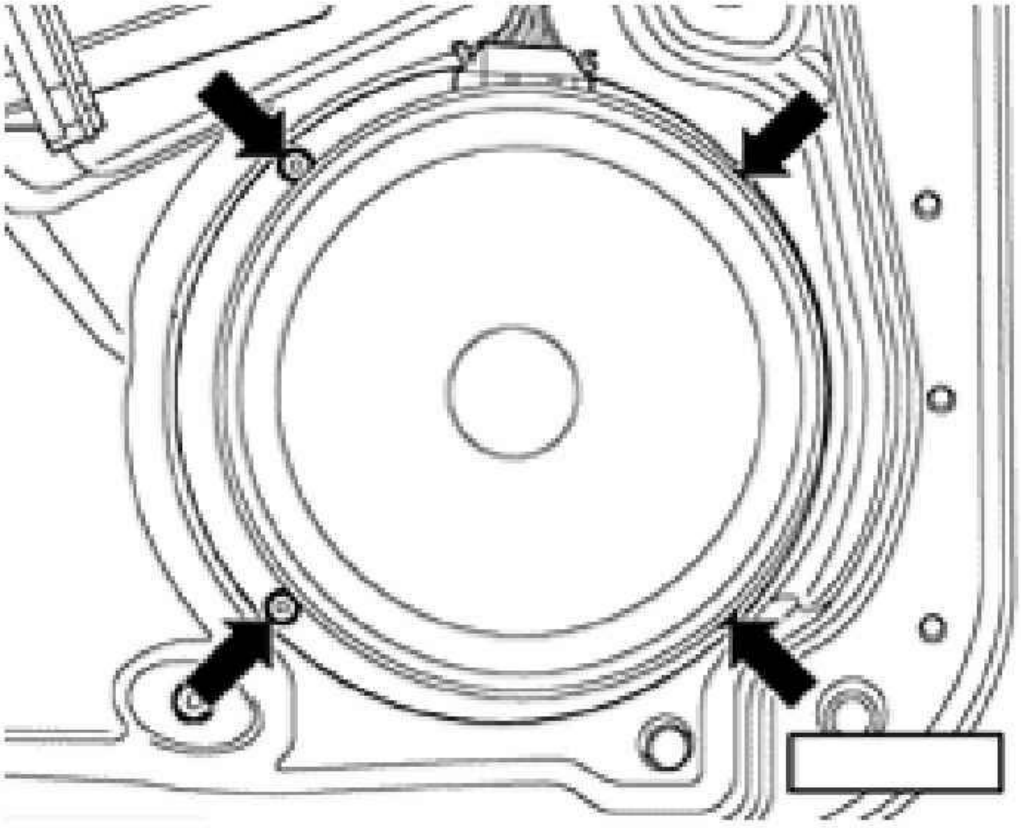

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Fig. 115: Identifying Hydraulic Cylinder Assembly Components
Courtesy of VOLKSWAGEN OF AMERICA, INC.

HYDRAULIC CYLINDER, REMOVING AND INSTALLING

> **WARNING: The hydraulic system reacts with extreme sensitivity to all types of contaminants. As soon as the system is opened the respective component must be covered, to prevent dirt entering the hydraulic system.**

Removing

- Open convertible top.
- Remove side trim panel.

See **SIDE PANEL TRIM, REMOVING AND INSTALLING** .

- Loosen bypass valve on hydraulic pump to release any residual pressure in the system.
- Unclip cap -12- on convertible top position switch -F171- on right side only
- Pry securing clip -13- out of piston rod -14-.
- Pry piston rod -14- off ball head using a screwdriver -10-.
- Close convertible top manually.
- Remove bolts/screws -8- (23 N.m
- Pull retaining clip -5- out.
- Remove hydraulic hoses -2- and -4-.

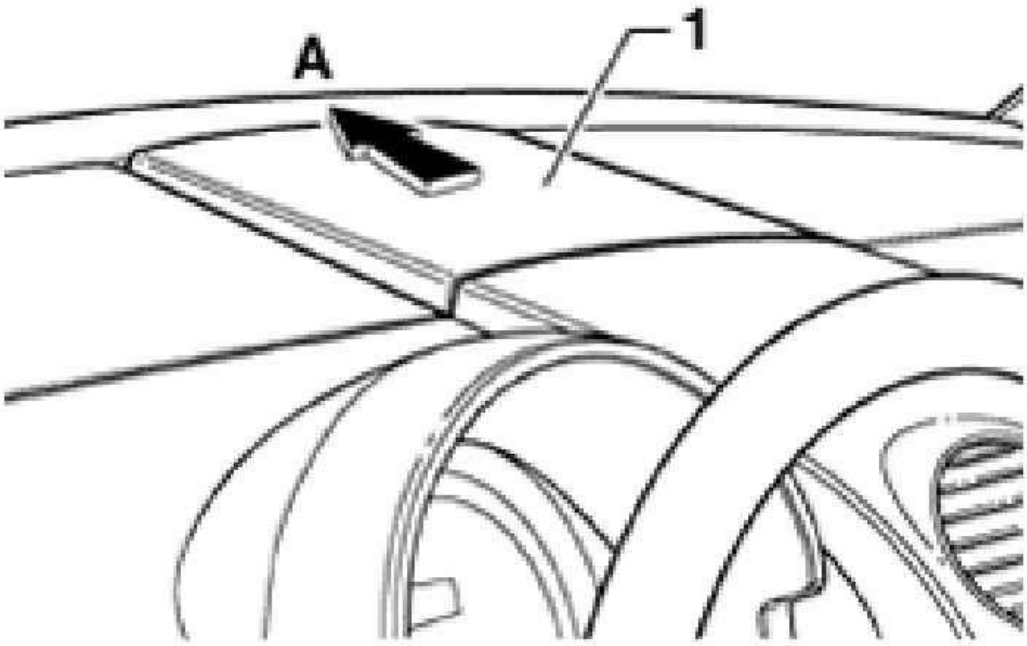

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Fig. 116: Removing Hydraulic Cylinder
Courtesy of VOLKSWAGEN OF AMERICA, INC.

Installing

NOTE: When installing ensure that the O-rings are not damaged and are seated correctly on the hydraulic lines.

Install in reverse order of removal.

- Fill hydraulic system and bleed, see **HYDRAULIC SYSTEM, FILLING AND BLEEDING** .

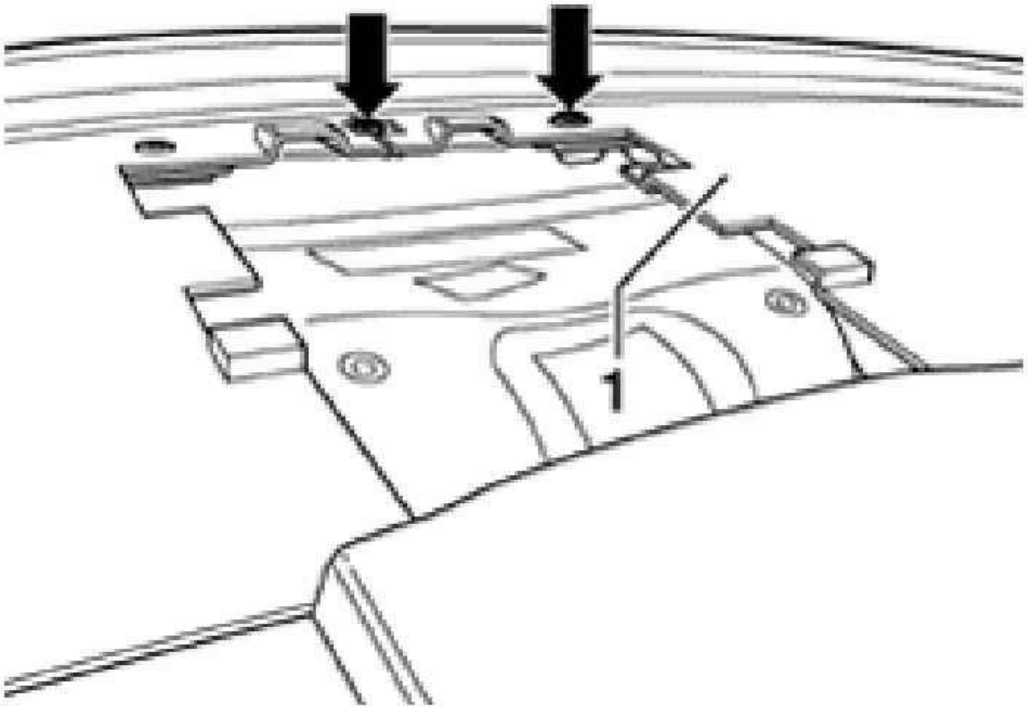

Fig. 117: Installing Hydraulic Cylinder
Courtesy of VOLKSWAGEN OF AMERICA, INC.

HYDRAULIC HOSES

WARNING: The hydraulic system reacts with extreme sensitivity to all types of contaminants.
As soon as the system is opened the respective component must be covered, to prevent dirt entering the hydraulic system.

- Remove luggage compartment trim on left and right-hand sides.

  See **LUGGAGE COMPARTMENT TRIM (CONVERTIBLE), REMOVING AND INSTALLING**

- Remove luggage compartment side trim on left and right.

See **LUGGAGE COMPARTMENT SIDE PANEL TRIM (CONVERTIBLE) REMOVING AND INSTALLING** .

- Remove side trim panel.

  See **SIDE PANEL TRIM, REMOVING AND INSTALLING** .

- Loosen bypass valve -3- on hydraulic pump to release any residual pressure in the system.
- Remove Torx(R) screw -1- (7 N.m).
- Remove hydraulic hoses -2- at hydraulic pump.

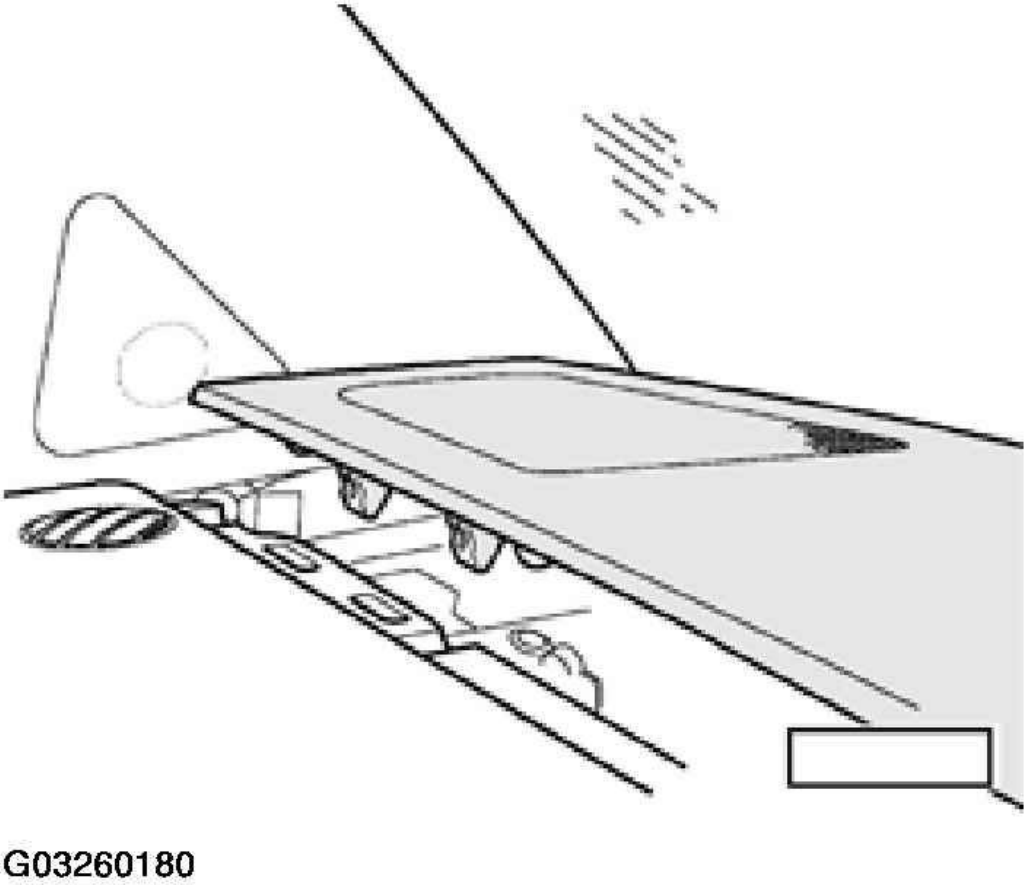

Fig. 118: Loosening Bypass Valve On Hydraulic Pump
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Unclip hydraulic hoses from water tray and luggage compartment side panel.

- Pull out retaining clip -1- and remove hydraulic hoses from hydraulic cylinder.

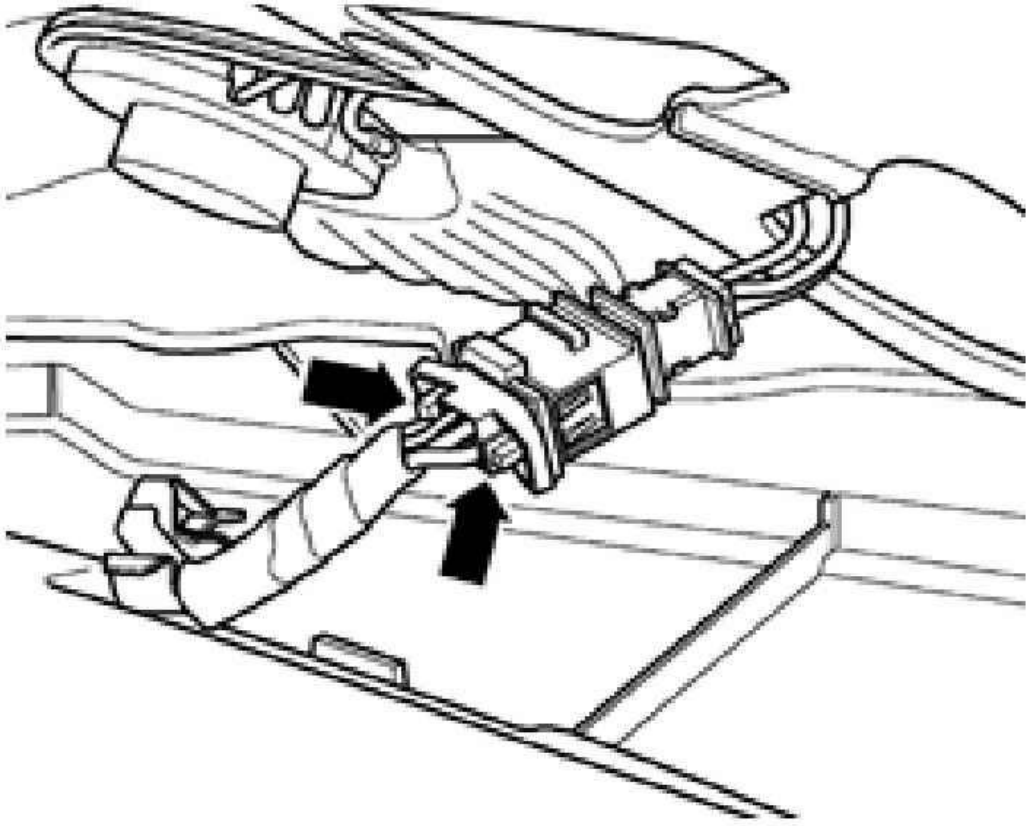

Fig. 119: Removing Hydraulic Hoses From Hydraulic Cylinder
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Guide hydraulic hoses through water tray.

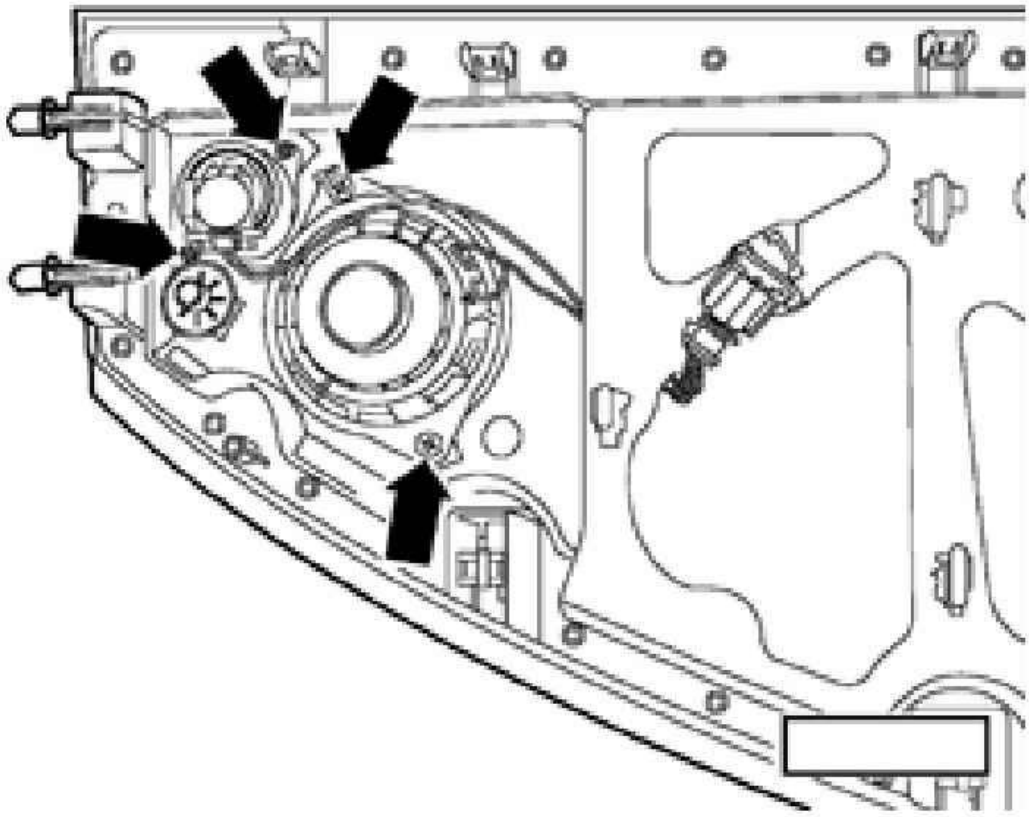

Fig. 120: Guiding Hydraulic Hoses Through Water Tray
Courtesy of VOLKSWAGEN OF AMERICA, INC.

Installing

NOTE: When installing make sure that the O-rings are not damaged and are seated correctly on the hydraulic lines.

Install in reverse order of removal.

- Fill hydraulic system and bleed, see **HYDRAULIC SYSTEM, FILLING AND BLEEDING** .

WINDSHIELD FRAME

WINDSHIELD FRAME, ASSEMBLY OVERVIEW

NOTE: The following list refers to items in Fig. 121 .

1. **Roof cross member**
2. **Retaining rail for seal**
3. **Roof cross member seal**
4. **Bolt/screw**
   - Qty. 15
5. **Spreader nut**
   - Qty. 15
6. **A-pillar**

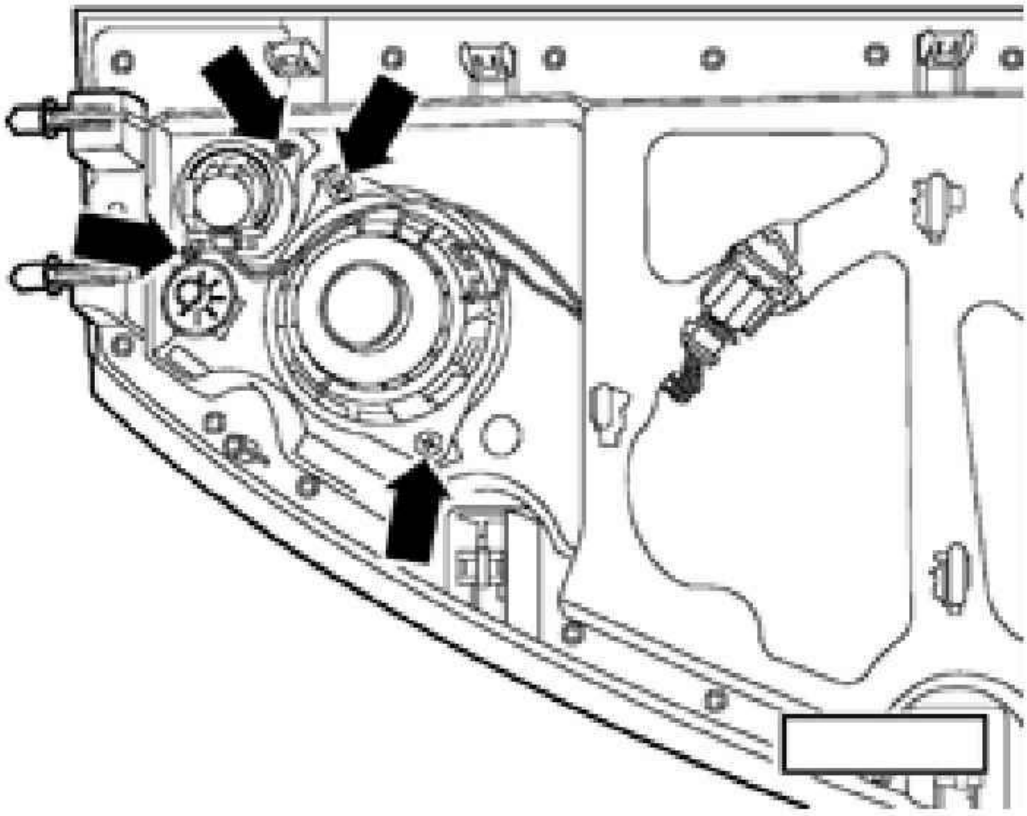

Fig. 121: Identifying Windshield Frame Assembly Components
Courtesy of VOLKSWAGEN OF AMERICA, INC.

ROOF CROSS MEMBER SEAL AND RETAINING RAIL, REMOVING AND INSTALLING (CONVERTIBLE)

Removing

- Open convertible top
- Release seal -1- from retaining rail.
- Remove bolts/screws -4-.
- Remove retaining rail -2-.

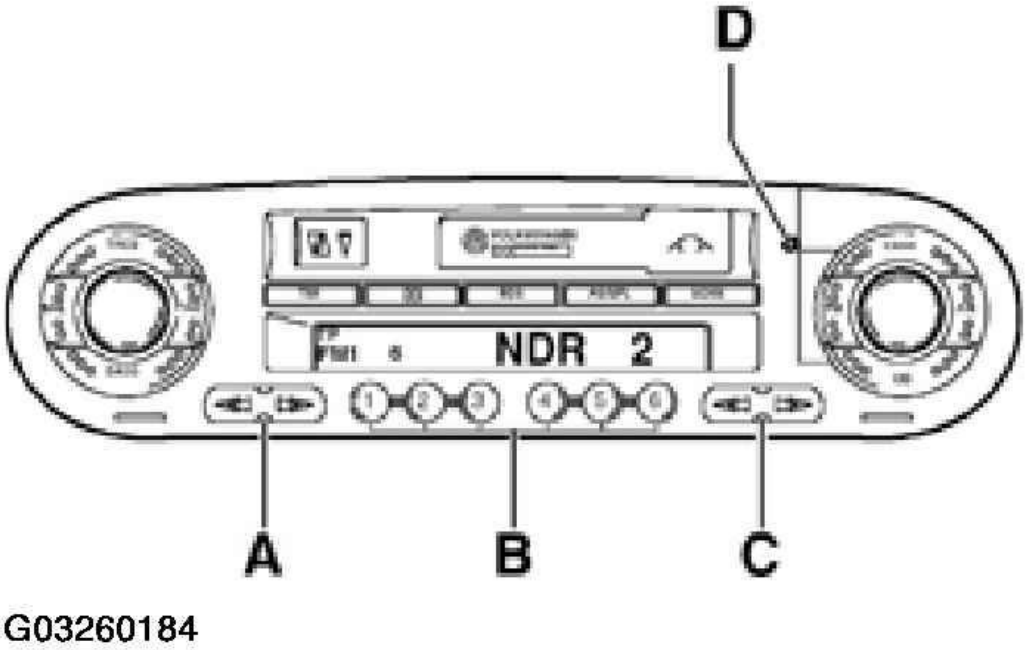

Fig. 122: Removing Roof Cross Member Seal And Retaining Rail
Courtesy of VOLKSWAGEN OF AMERICA, INC.

Installing

Install in reverse order of removal.

NOTE: When installing the seal -1- make sure it is seated correctly in the retaining rail -2-.

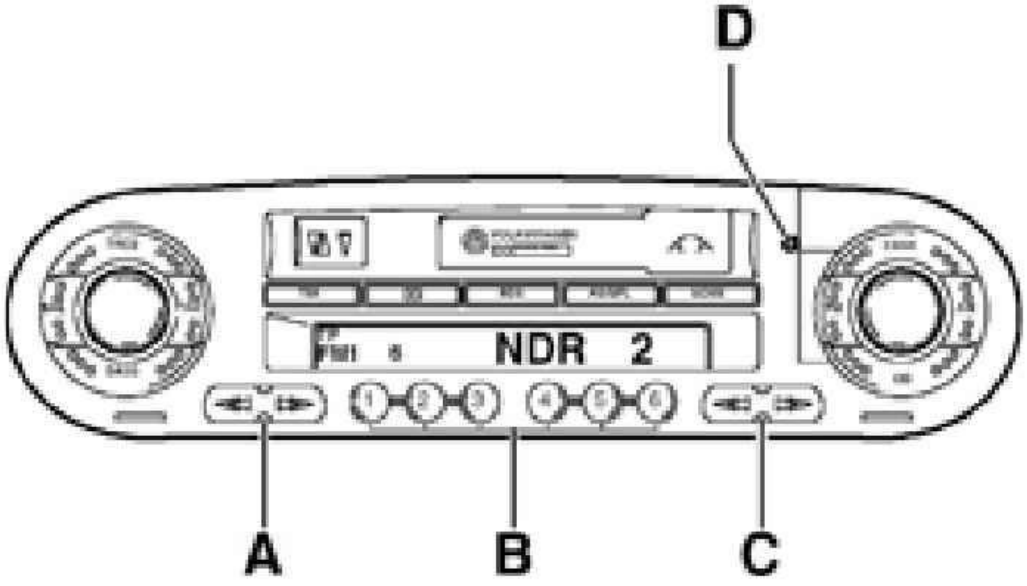

Fig. 123: Installing Roof Cross Member Seal And Retaining Rail
Courtesy of VOLKSWAGEN OF AMERICA, INC.

SLIDING/TILTING SUNROOF

TOOLS

Special tools, workshop equipment, testers, measuring instruments and auxiliary items required

- 3370 Special hook.

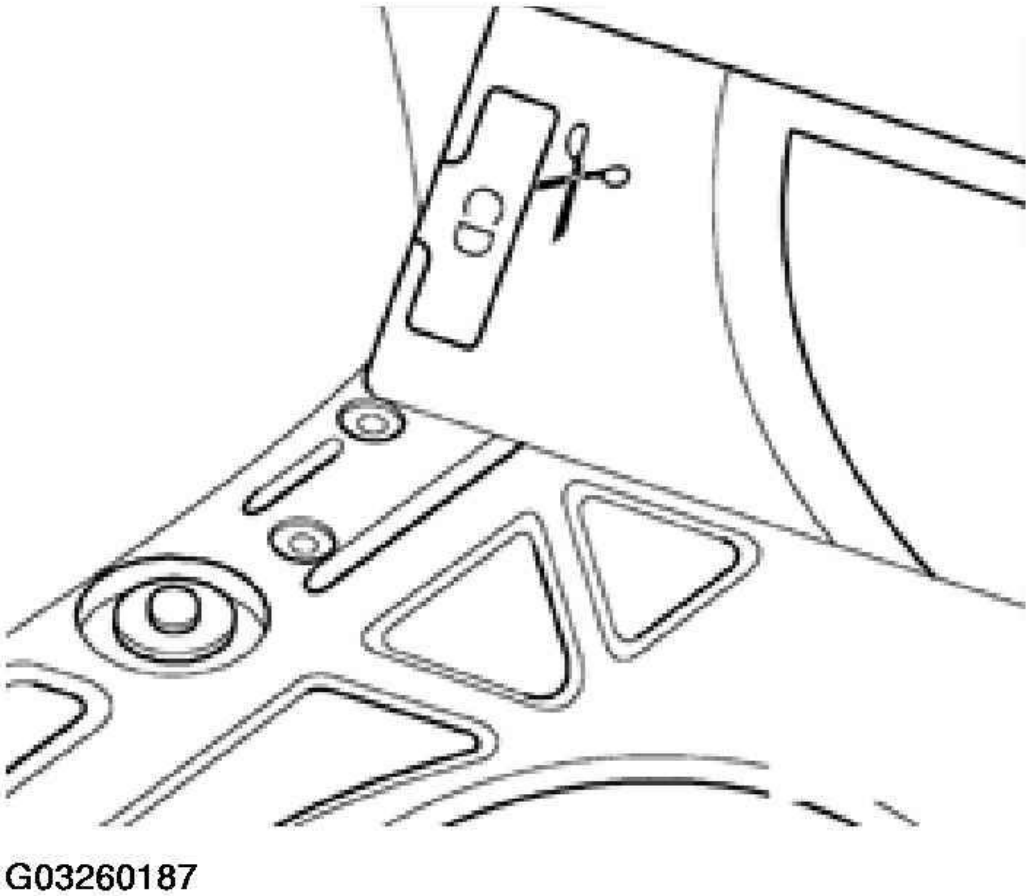

Fig. 1: Identifying Special Tools (3370 Special Hook)
Courtesy of VOLKSWAGEN OF AMERICA, INC.

FUNCTION

The sliding/tilting sunroof is opened and closed or tilted and closed using the rotary switch when the ignition is switched on.

After switching off ignition sliding/tilting sunroof can be opened or closed until either driver's or front passengers door is opened.

Rotary switch has markings for preset opening or tilting positions for glass sunroof panel. But any intermediate position for opening or tilting position can be selected by moving rotary switch in relevant direction.

Opening sliding/tilting sunroof to switch position -1-, comfort position, prevents wind noises which to a great extent would occur if opening fully to switch position -2-.

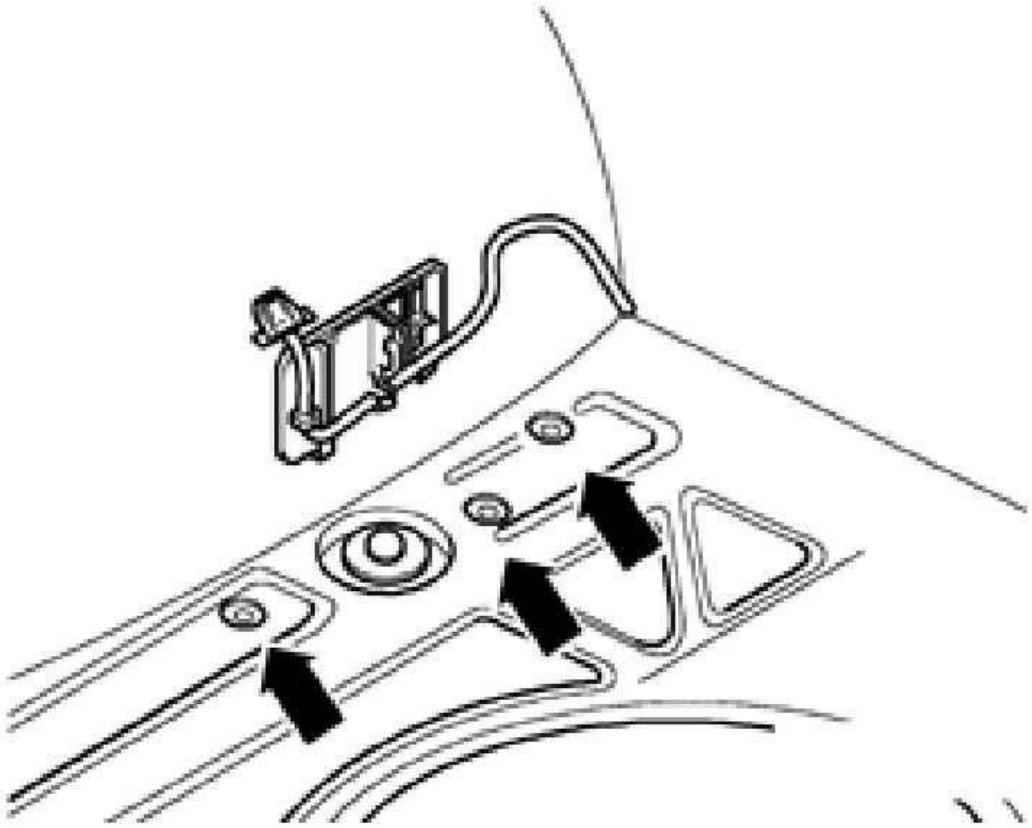

Fig. 2: Identifying Sunroof Switch Position
Courtesy of VOLKSWAGEN OF AMERICA, INC.

SLIDING/TILTING SUNROOF WITH GLASS PANEL, ASSEMBLY OVERVIEW

NOTE: The following list refers to items in Fig. 3 .

1. **Glass panel for sliding/tilting sunroof (single pane safety glass)**
   - Removing sliding/tilting sunroof glass panel, see **SLIDING/TILTING SUNROOF GLASS PANEL, REMOVING** .
   - Installing sliding/tilting sunroof glass panel, see **SLIDING/TILTING SUNROOF GLASS PANEL, INSTALLING** .
   - Adjusting sliding/tilting sunroof glass panel, see **SLIDING/TILTING SUNROOF GLASS PANEL, ADJUSTING HEIGHT** .
2. **Panel seal**
   - Adjusting panel seal, see **PANEL SEAL, ADJUSTING** .
   - Seal joint located centrally at rear.
   - Replacing panel seal, see **PANEL SEAL, REPLACING** .
3. **Sun blind**
   - Removing and installing sunblind, see **SUN BLIND, REMOVING** .
4. **Countersunk screws (micro-encapsulated)**
   - Always use new countersunk screws.
   - 3.5 N.m.
5. **Slide**
6. **Upper trim**
   - Removing, see **SLIDING/TILTING SUNROOF GLASS PANEL, REMOVING** .
7. **Lower trim**
   - Removing, see **SLIDING/TILTING SUNROOF GLASS PANEL, REMOVING** .
8. **Water channel**
   - Removed together with guide channel.
9. **Guide locking hook**
10. **End piece**
    - Use Butyl adhesive sealing cord AKL 450 005 05 to seal.
11. **Carrier unit**
    - Removing and installing carrier unit, see **CARRIER UNIT, REMOVING AND INSTALLING** .
    - If required, guide channels may only be greased with special grease G 000 450 02, otherwise correct operation cannot be guaranteed.
12. **Bolt/screw**
    - Qty. 3.
13. **Electric drive**
    - Removing, see **DRIVE FOR SLIDING/TILTING SUNROOF, REMOVING** .
    - Adjusting drive (zero position), see **DRIVE FOR SLIDING/TILTING SUNROOF ("0" POSITION), ADJUSTING** .
14. **Wind deflector**

- Removing, see **DRIVE FOR SLIDING/TILTING SUNROOF ("0" POSITION), ADJUSTING** .

15. **Spring**
16. **Torx(R) & screw**
    - Torx(R) key T25.
    - 4.5 N.m.
17. **Rear guide**
    - Removed together with guide channel.
18. **Guide channel**
    - Removing, see **GUIDE CHANNEL, REMOVING** .
19. **Distance piece**
    - Removed together with guide channel.

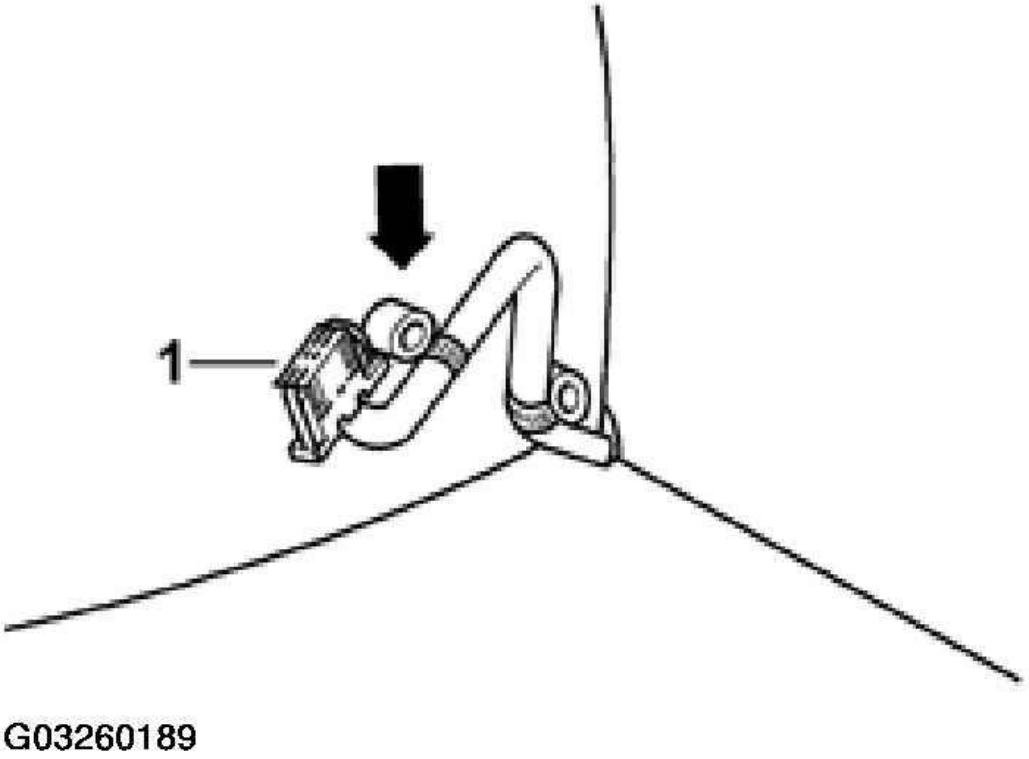

Fig. 3: Exploded View Of Sunroof
Courtesy of VOLKSWAGEN OF AMERICA, INC.

SLIDING/TILTING SUNROOF GLASS PANEL, REMOVING

- Slide sun blind to rear.
- Tilt (raise) sliding/tilting sunroof open
- Unclip lower trim -2- in forward area (working from outer side inward to center of vehicle) and unhook at rear.
- Unclip upper trim -1- at front, the center and unhook at rear.

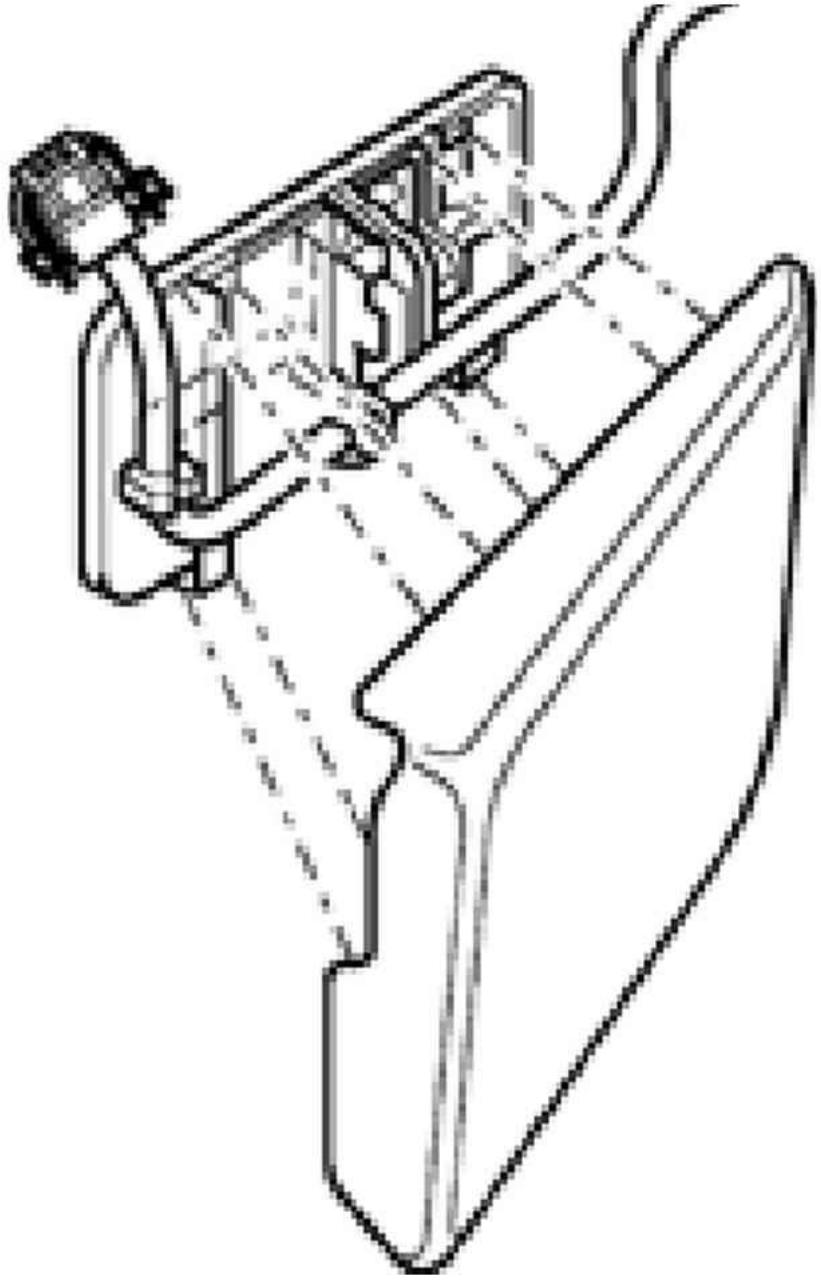

Fig. 4: Removing Lower Trim Clip In Forward Area
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Remove securing screws (Torx(R) insert T25; 4.5 N.m).

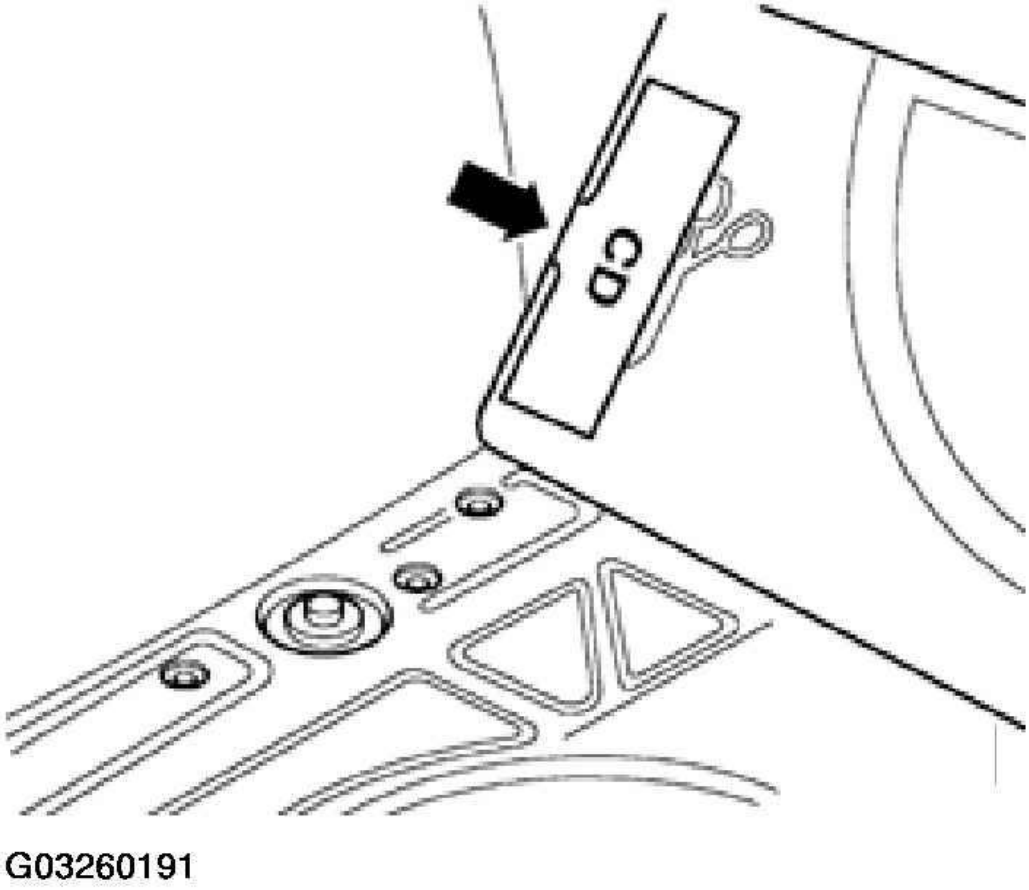

Fig. 5: Removing Sliding/Tilting Roof Panel Upward
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Remove sliding/tilting roof panel upward.

NOTE: The sliding/tilting sunroof must not be moved to position "Open" when glass panel is removed, this is because water channel will not be compressed by glass panel and can therefore may tilt in roof.

SLIDING/TILTING SUNROOF GLASS PANEL, INSTALLING

Panel must be installed in "0" position (panel closed).

"0" position:

The mark -arrow- on the rear of the guide upper part -1- must lie within the marks -dimension a- on the guide

rail gate -2-, on both sides.

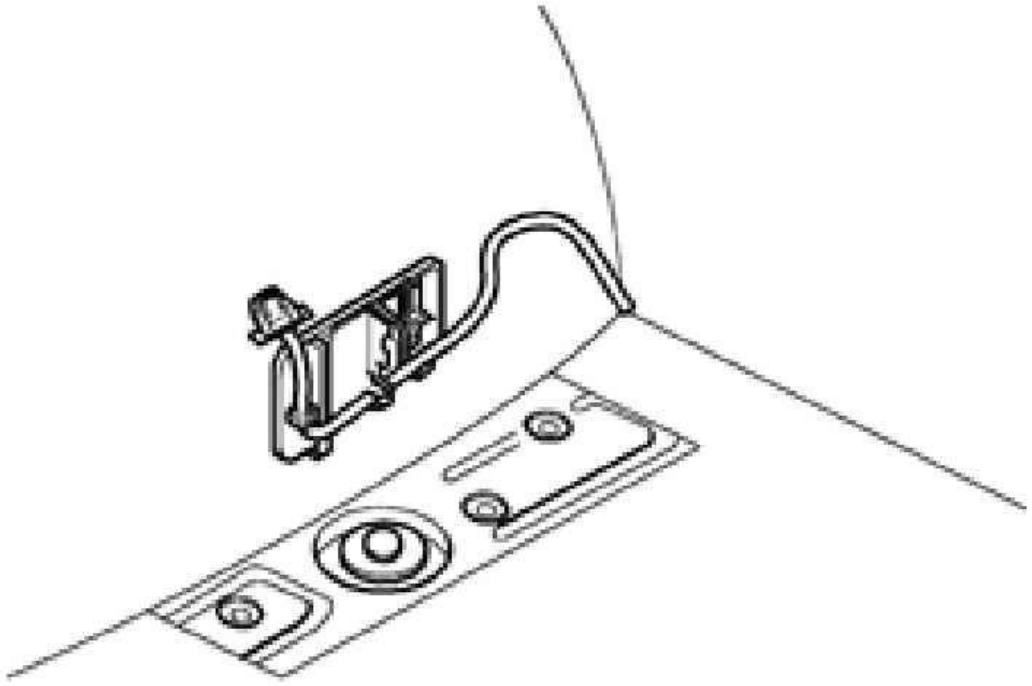

Fig. 6: Marking Dimension On Guide Rail Gate
Courtesy of VOLKSWAGEN OF AMERICA, INC.

The guide channel -2- must be located in the guide rails (cannot be moved by hand).

If this is not the case, adjust parallel running, see **PARALLEL RUNNING, ADJUSTING** .

- Place sliding/tilting sunroof panel in position from above and screw in securing screws (guide rail/panel).

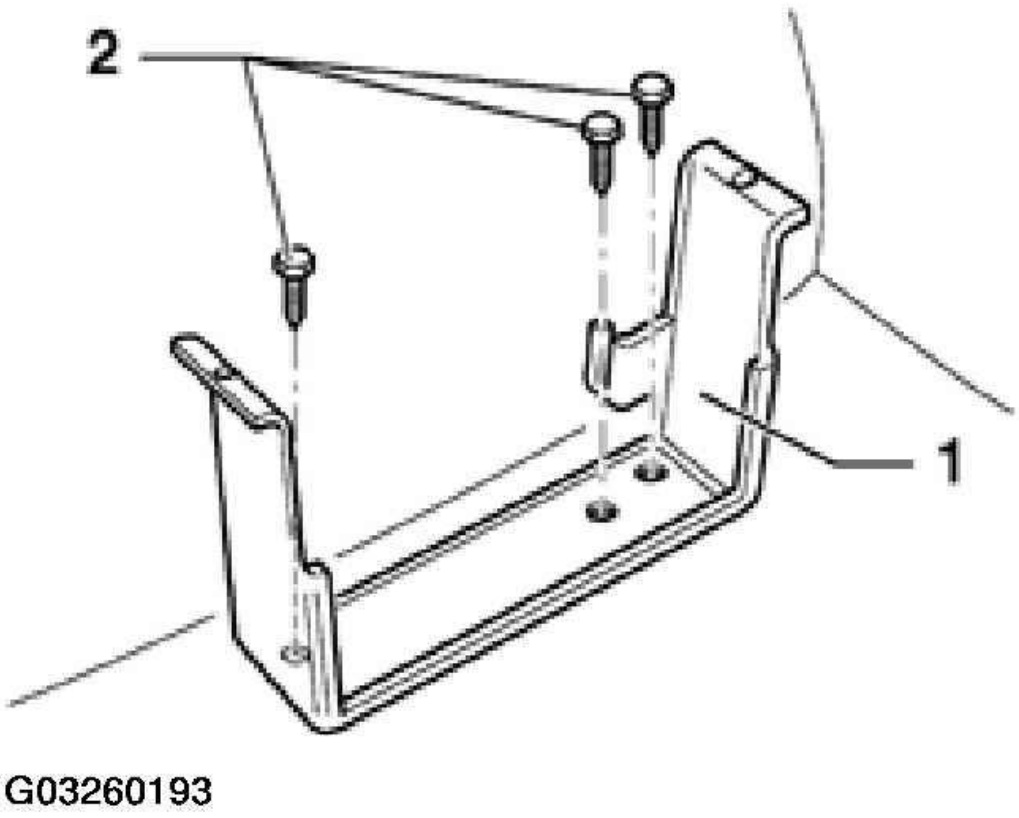

Fig. 7: Installing Sliding/Tilting Sunroof Panel
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Lightly tighten securing screws (Torx(R) T25).

NOTE: After adjusting panel height tighten securing screws (4.5 N.m).

SLIDING/TILTING SUNROOF GLASS PANEL, ADJUSTING HEIGHT

Sliding/tilting sunroof "0" position OK.

- Tilt (raise) sliding/tilting sunroof open.
- Slide sun blind to rear.
- Unclip lower trim -2- in forward area (working from outer side inward to center of vehicle) and unhook at rear.
- Unclip upper trim -1- at front, the center and unhook at rear.

- Remove securing screws -3- (Torx(R) insert T25; 4.5 N.m).

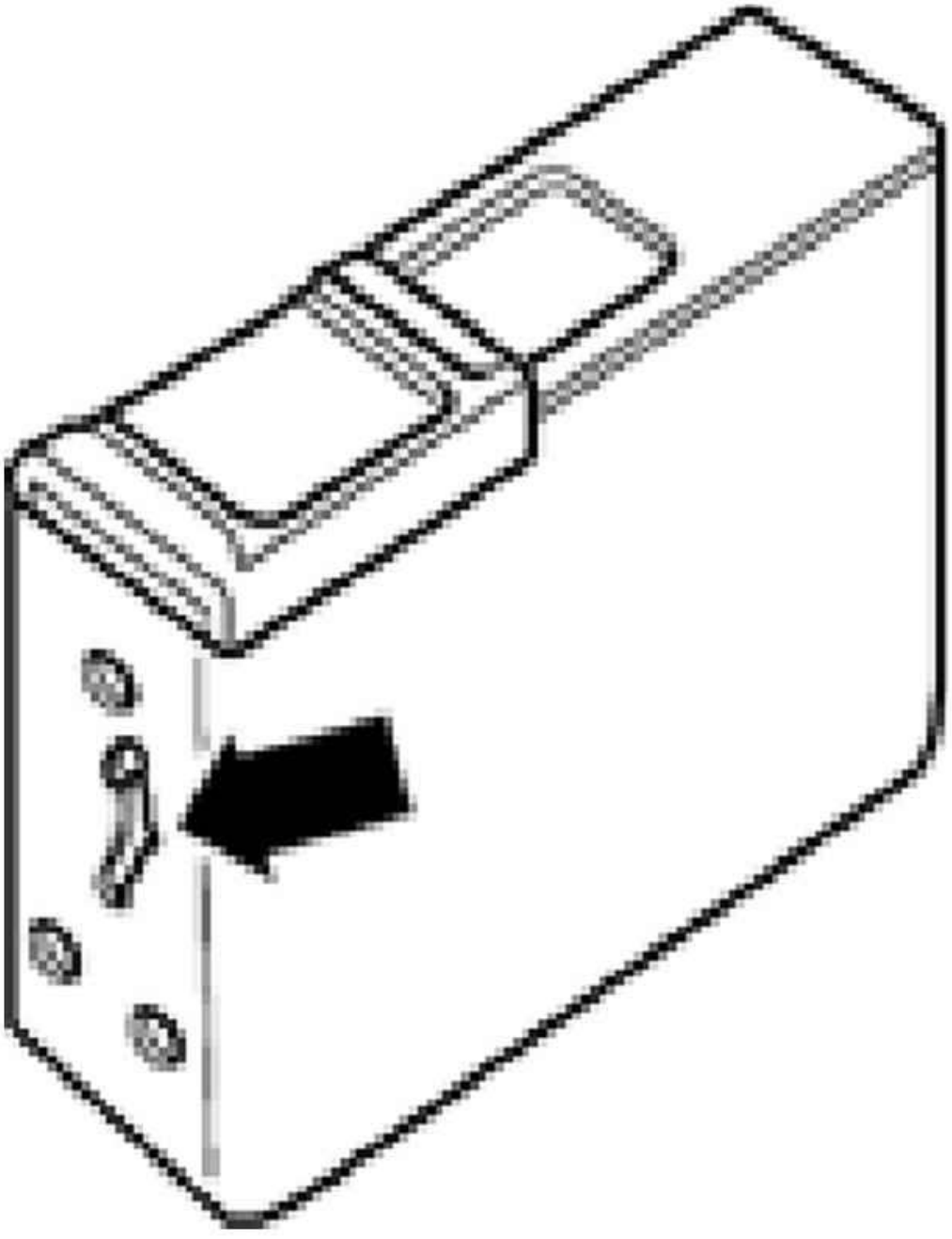

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Fig. 8: Removing Lower Trim Clip In Forward Area
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Run glass panel to "closed" position.
- Carry out height adjustment of glass panel at front and rear on both sides as follows:

Panel adjustment front:

a = 0...1 mm lower than roof level.

-Arrow- = direction of travel (forward).

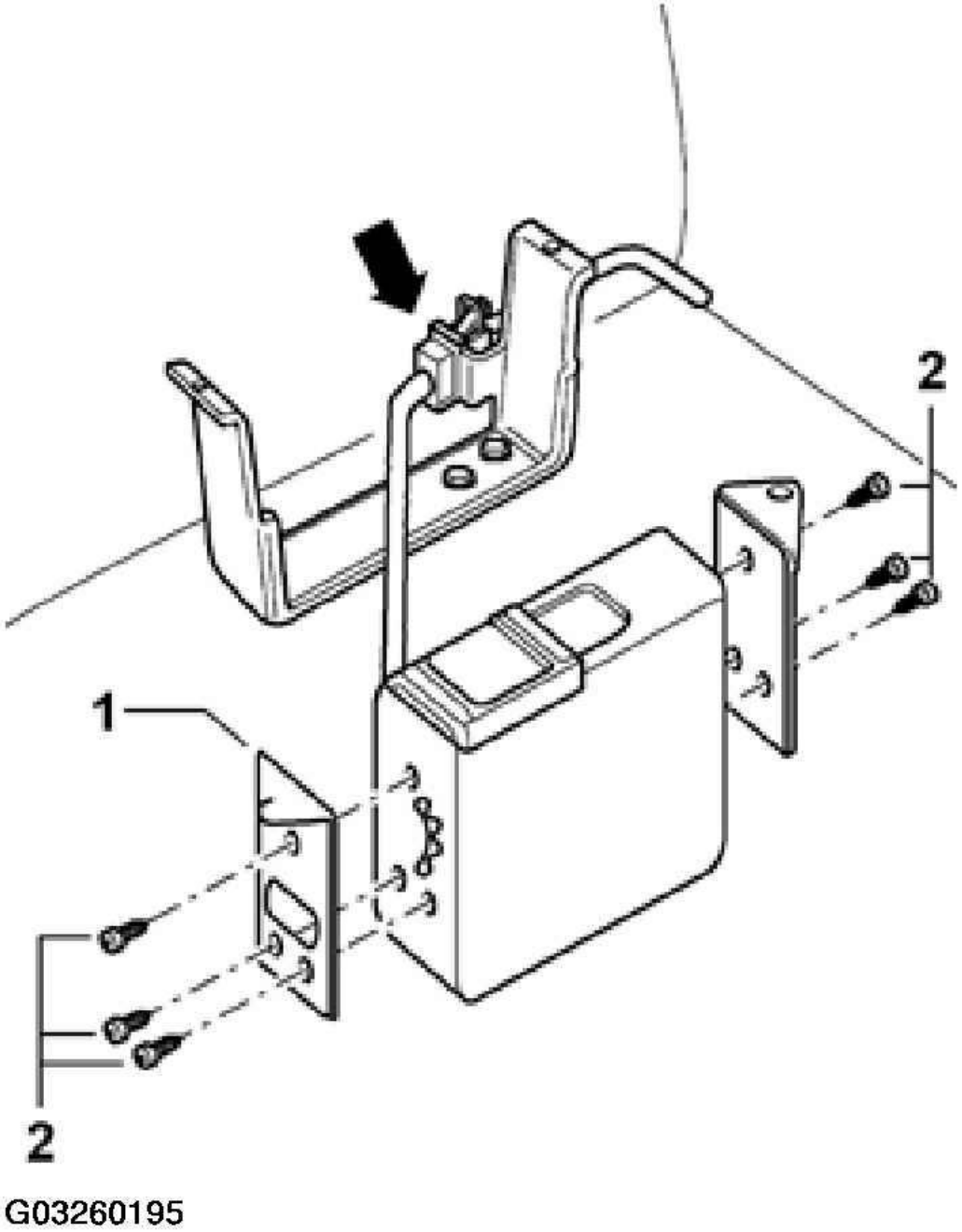

Fig. 9: Identifying Front Panel Adjustment
Courtesy of VOLKSWAGEN OF AMERICA, INC.

Panel adjustment rear:

b = 0...1 mm higher than roof level.

Arrow = direction of travel (forward).

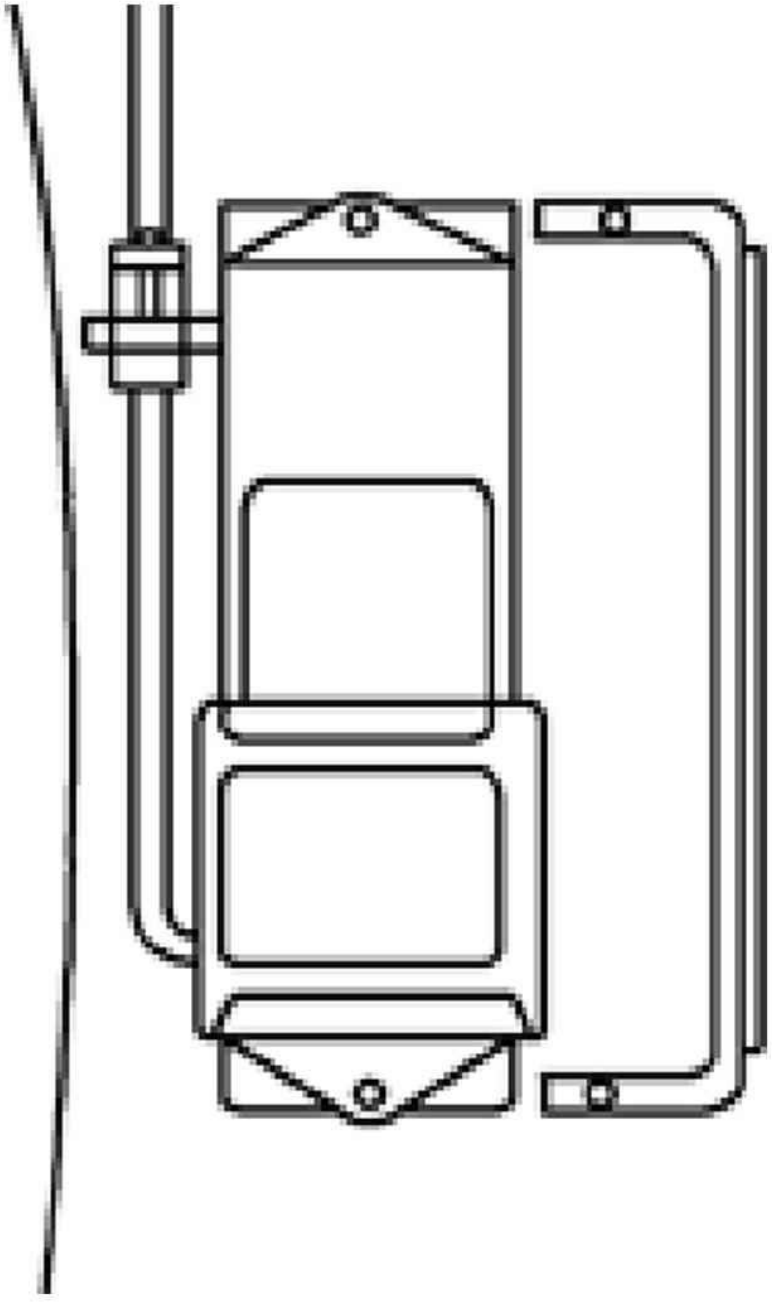

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Fig. 10: Identifying Rear Panel Adjustment
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Tighten screws for glass panel (4.5 N.m).

  Always tighten left and right-hand sides of glass panel symmetrically.

- Tilt (raise) sliding/tilting sunroof open.
- Hook in upper trim -1- at rear and clip front and center in.
- Hook in rear of lower trim -2- and clip front in.

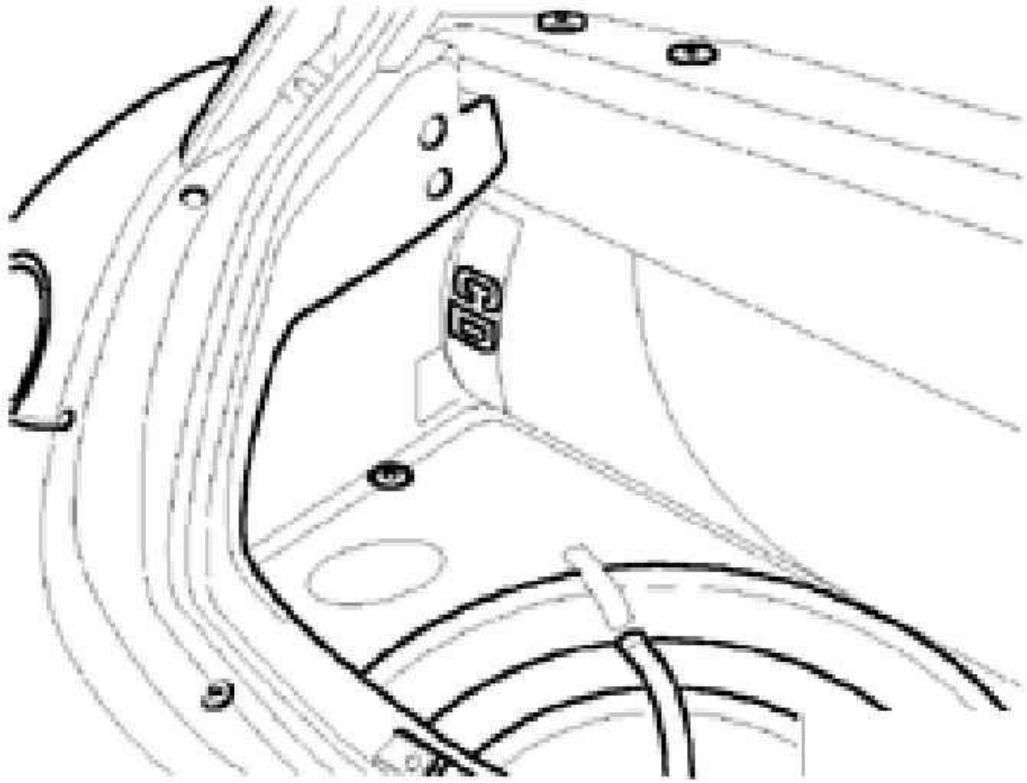

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Fig. 11: Installing Hook In Upper Trim At Rear
Courtesy of VOLKSWAGEN OF AMERICA, INC.

PANEL SEAL, ADJUSTING

- Check that pre-tension between panel seal -2- and body is uniform all-round using an approx. 0,3 mm thick strip of paper (a visiting card for example). It must be possible to pull paper strip through between panel seal and body under tension.

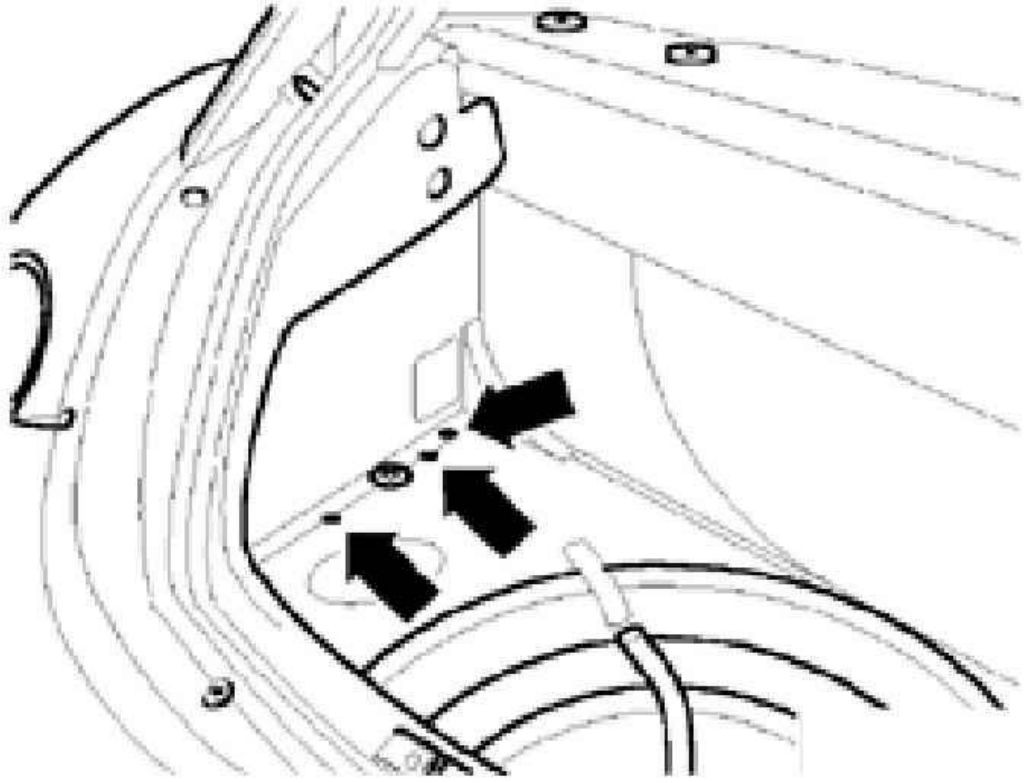

Fig. 12: Identifying Pre-Tension Between Panel Seal And Body
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- If panel seal is insufficient panel seal can be pushed apart with a wedge -1-, or if the pretension is excessive pushed together. To adjust the glass panel seal the glass panel -3- must be removed.

PANEL SEAL, REPLACING

- Remove sliding/tilting sunroof glass panel, see **SLIDING/TILTING SUNROOF GLASS PANEL, REMOVING** .
- Pull seal -1- off glass panel.

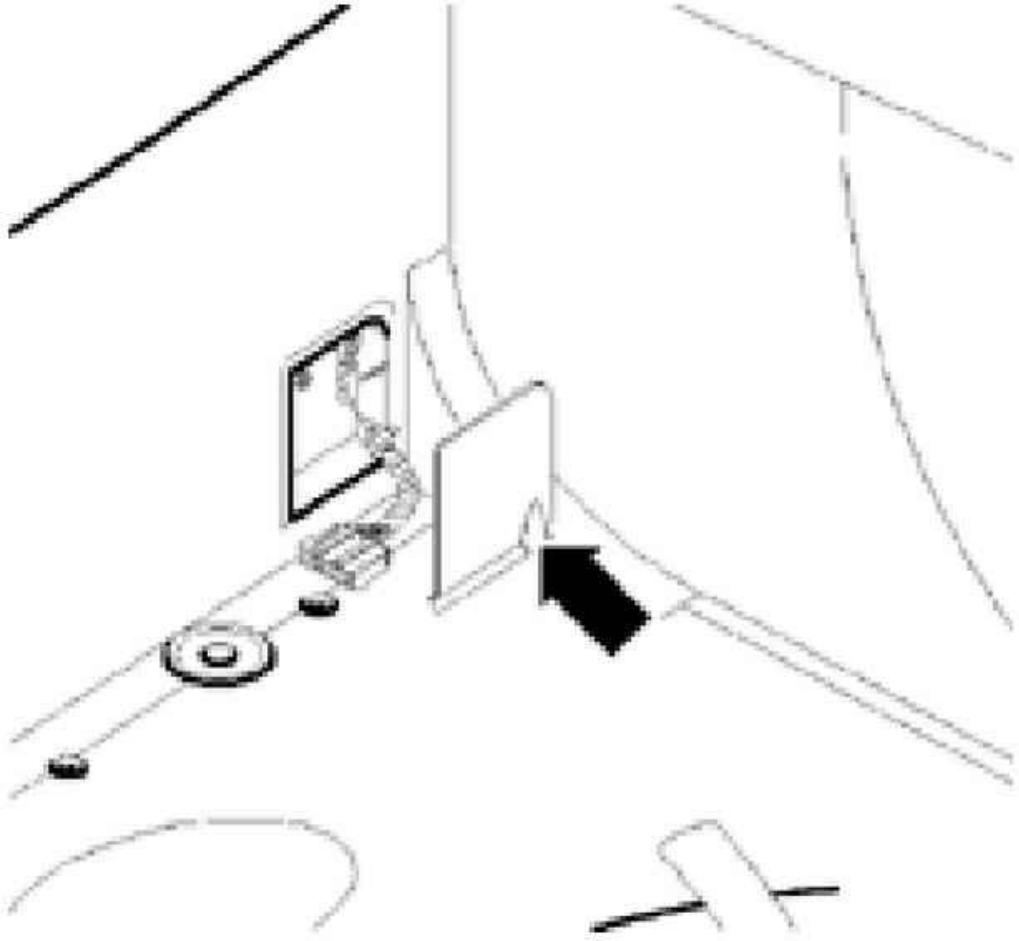

Fig. 13: Identifying Glass Panel Seal
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Pull new seal onto glass panel -2-, starting from center of panel rear working from bottom to top.

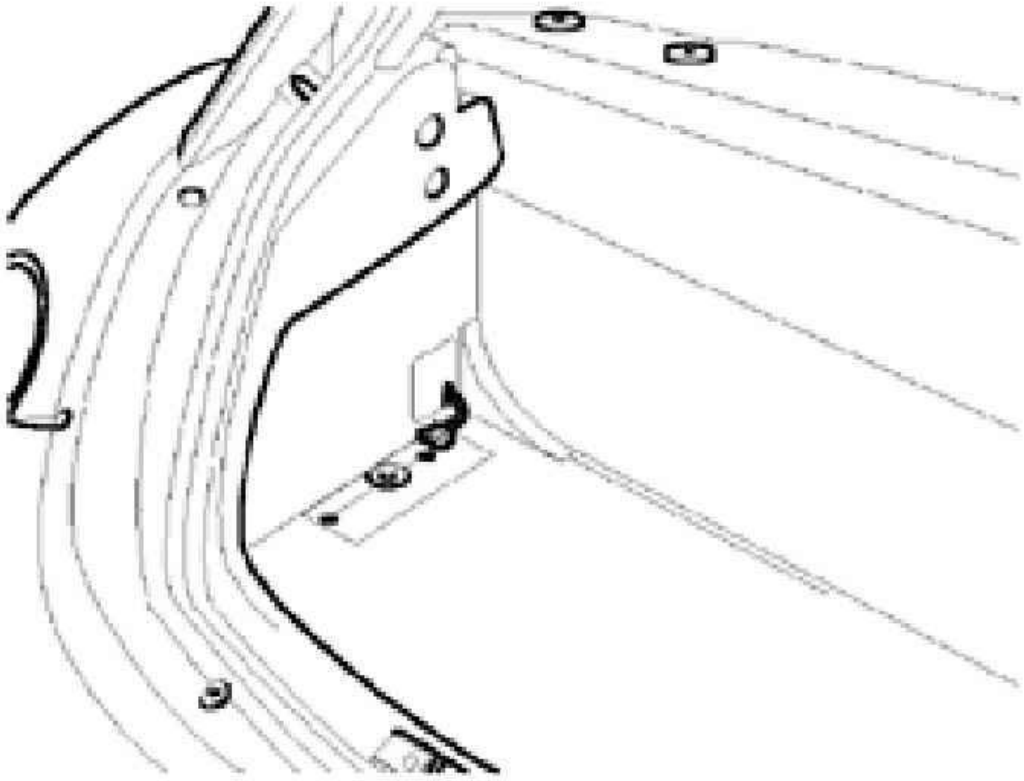

Fig. 14: Identifying Glass Panel Seal
Courtesy of VOLKSWAGEN OF AMERICA, INC.

NOTE: Moisten edge of panel with a soapy solution to ease installation of seal.

- Cut panel seal to length after installing.

WIND DEFLECTOR, REMOVING

- Sliding/tilting sunroof completely open.
- Install Special Hook 3370 between edge of roof and wind deflector mounting and release wind deflector mounting -1- from locking devices (left and right-hand sides) by pulling on Special Hook 3370.

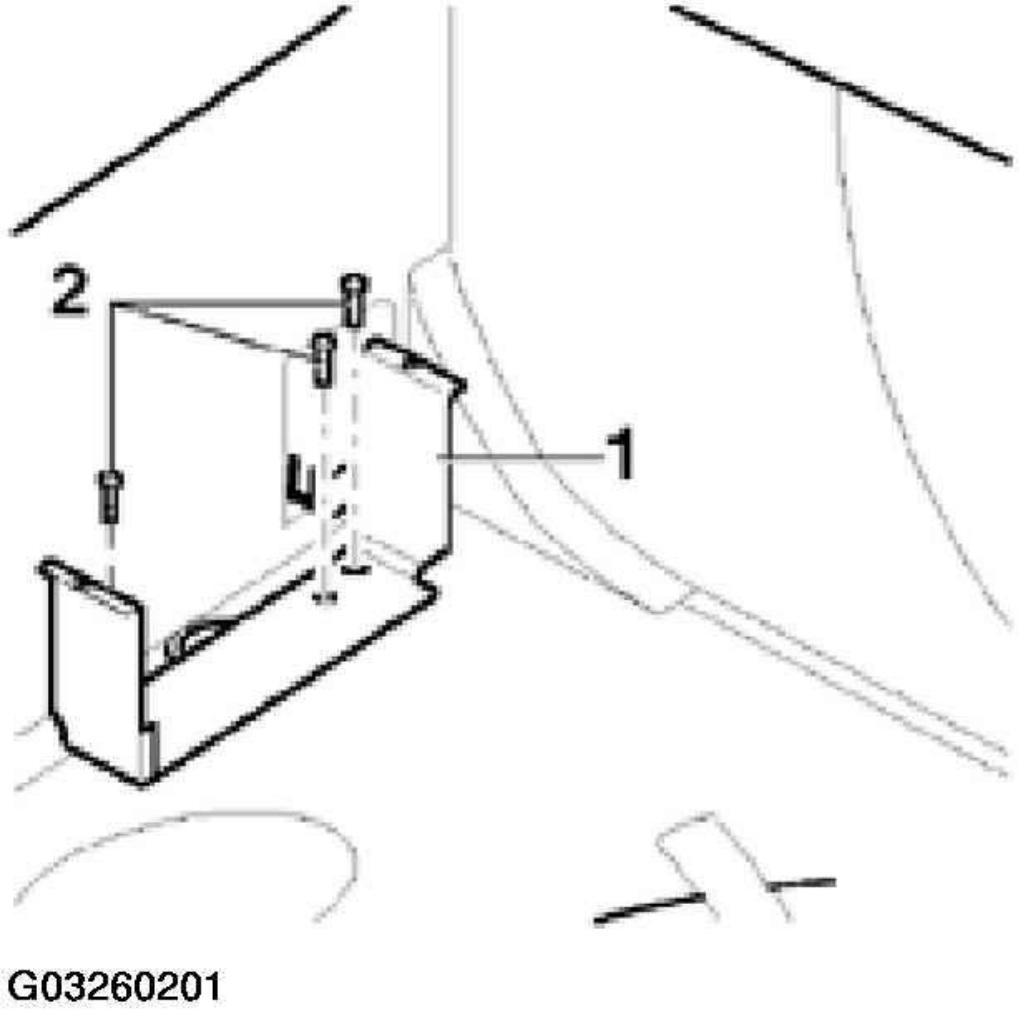

Fig. 15: Installing Special Hook 3370 Between Edge Of Roof And Wind Deflector Mounting
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Pry wind deflector mounting out of guide rail (left and right-hand sides) with a screwdriver.
- Remove wind deflector.

NOTE: When installing, make sure that wind deflector mounting locks in carrier unit in the prescribed position.

SUN BLIND, REMOVING

- Remove sliding/tilting sunroof glass panel, see **SLIDING/TILTING SUNROOF GLASS PANEL, REMOVING** .
- Slide sun blind to rear.
- Remove forward screws -arrow- on left and right-hand sides. Pull slide out forward over the limit stop -1- .

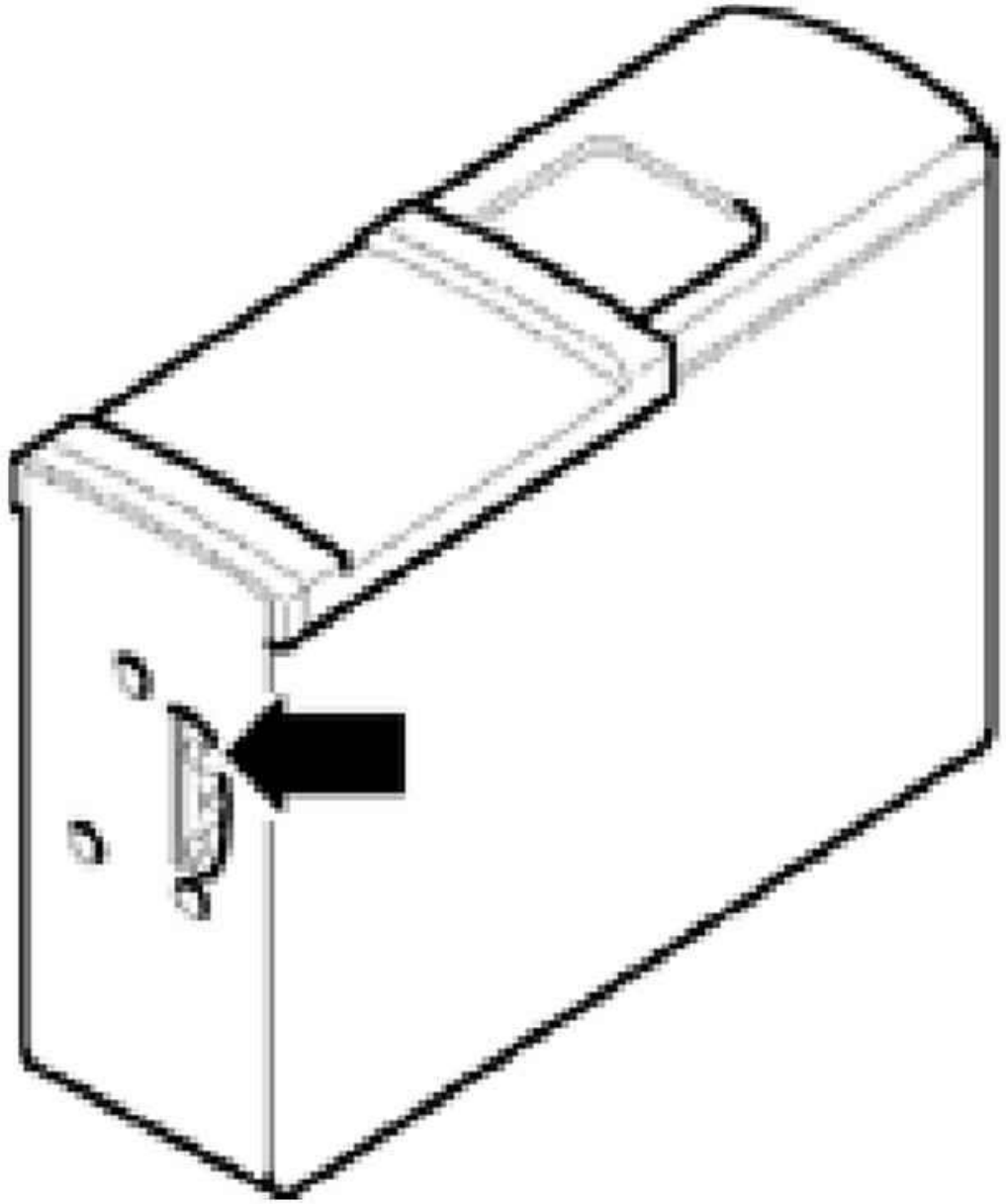

Fig. 16: Removing Forward Screws On Left And Right-Hand Sides
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Slide sun blind forward.

- Remove rearward screws -arrow- on left and right-hand sides. Pull slide out to rear and take out sun blind -1-.

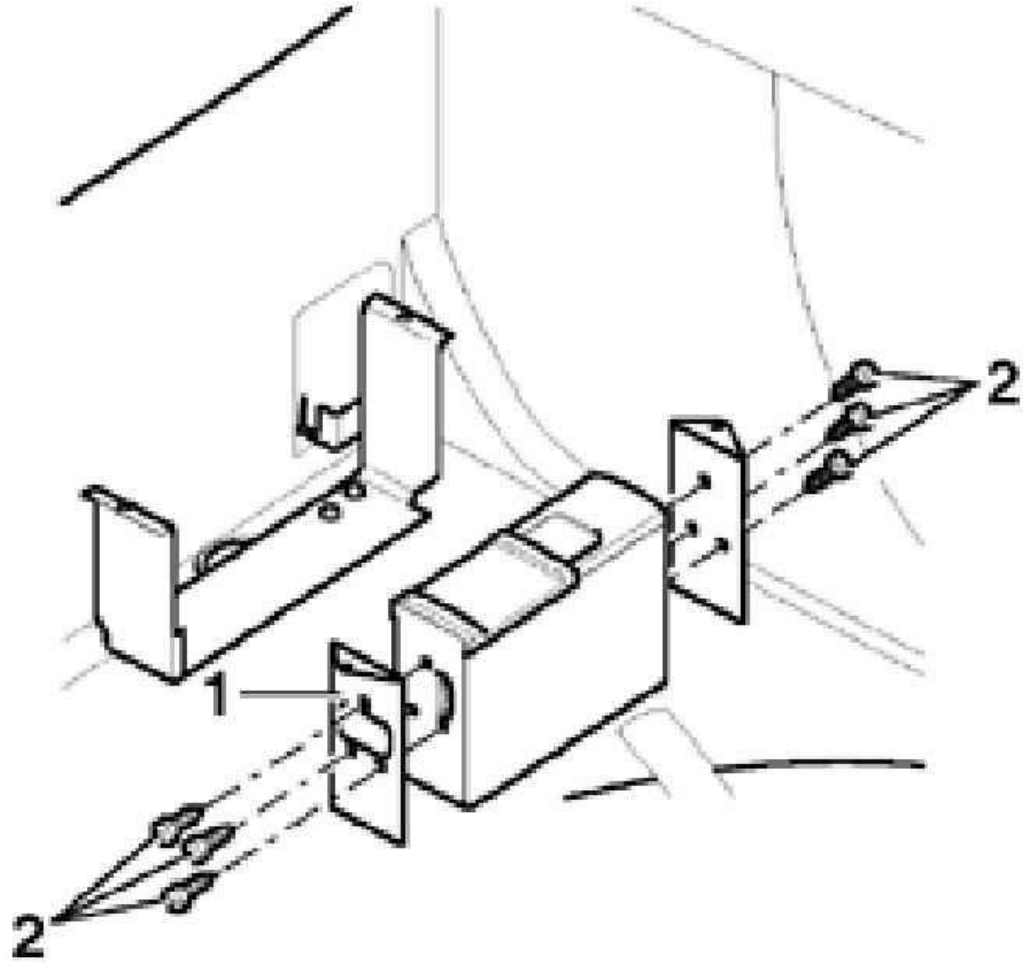

Fig. 17: Removing Rearward Screws On Left And Right-Hand Sides
Courtesy of VOLKSWAGEN OF AMERICA, INC.

DRIVE FOR SLIDING/TILTING SUNROOF, REMOVING

NOTE: Remove and install drive for sliding/tilting sunroof only when the roof is closed ("0"position).

- Disconnect battery Ground (GND) strap from battery.
- Unclip trim -1- in direction of arrow and remove.

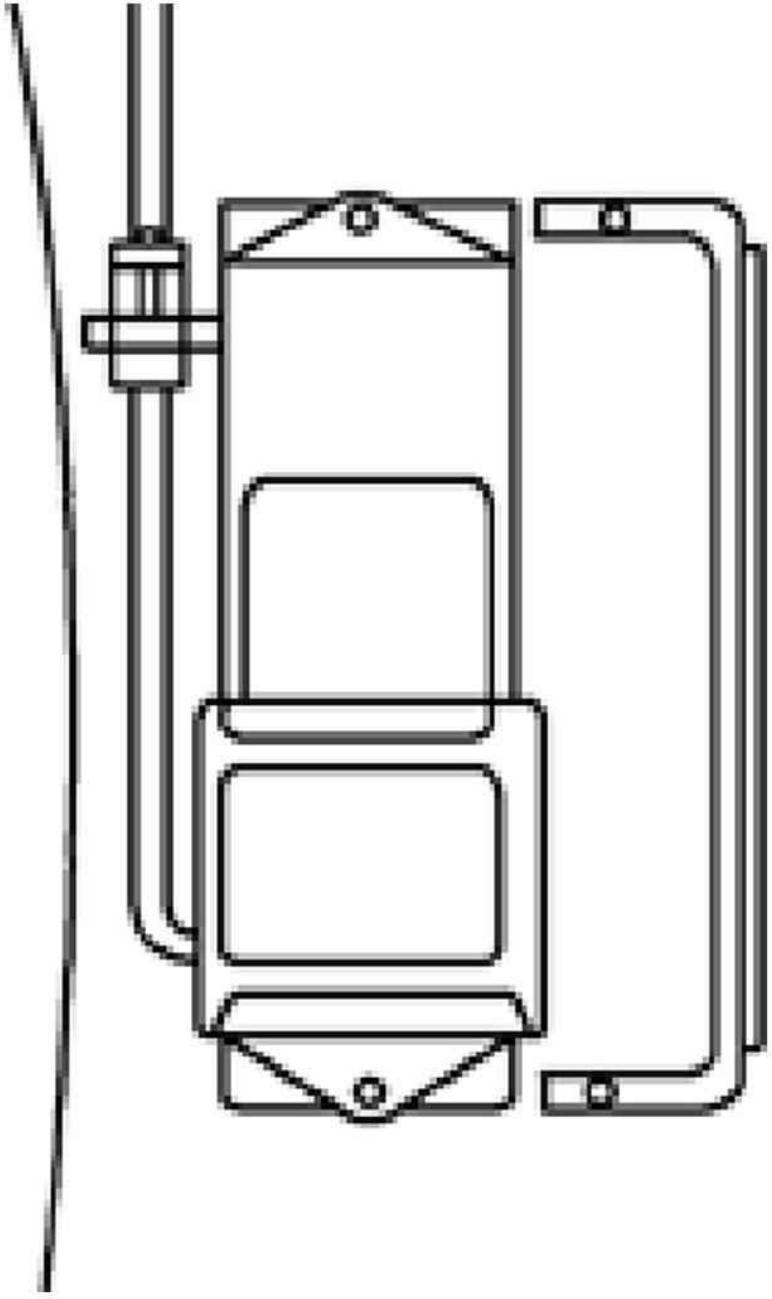

Fig. 18: Removing Trim Clip

Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Remove screws -1- and carefully unclip retaining frame locking lugs -arrows- of the automatic pre-selector.

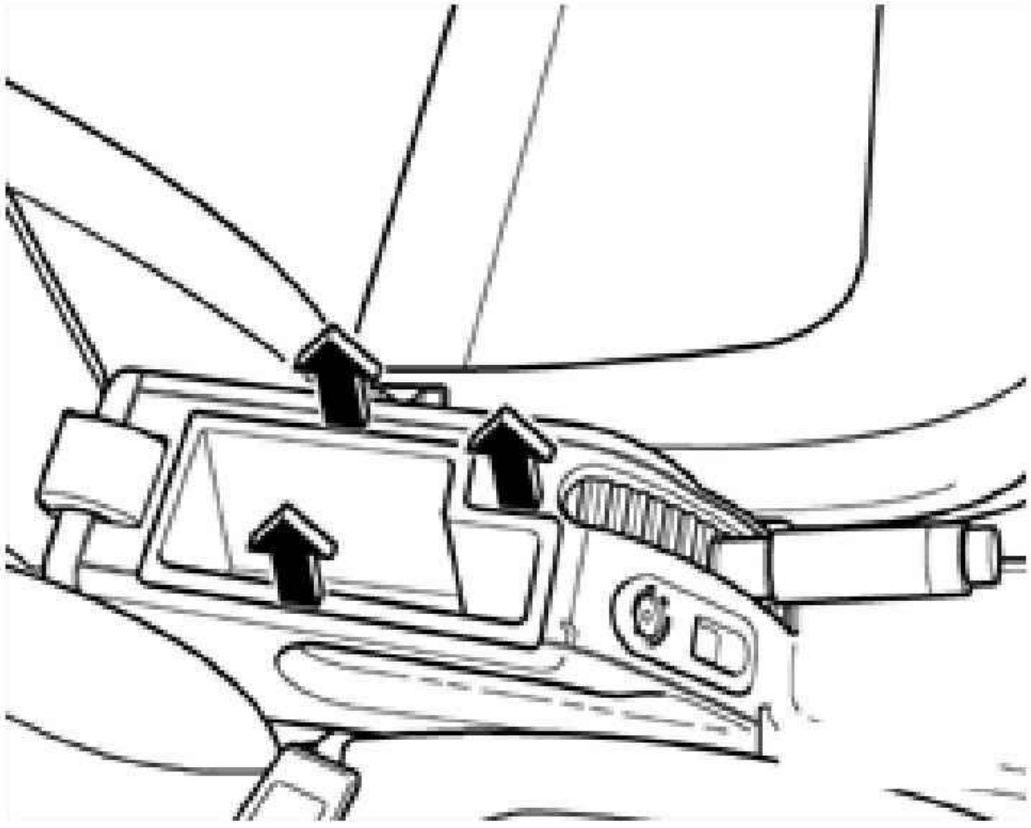

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Fig. 19: Removing Retaining Frame Locking Lugs Of Automatic Pre-Selector
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Disconnect connection -arrow-.

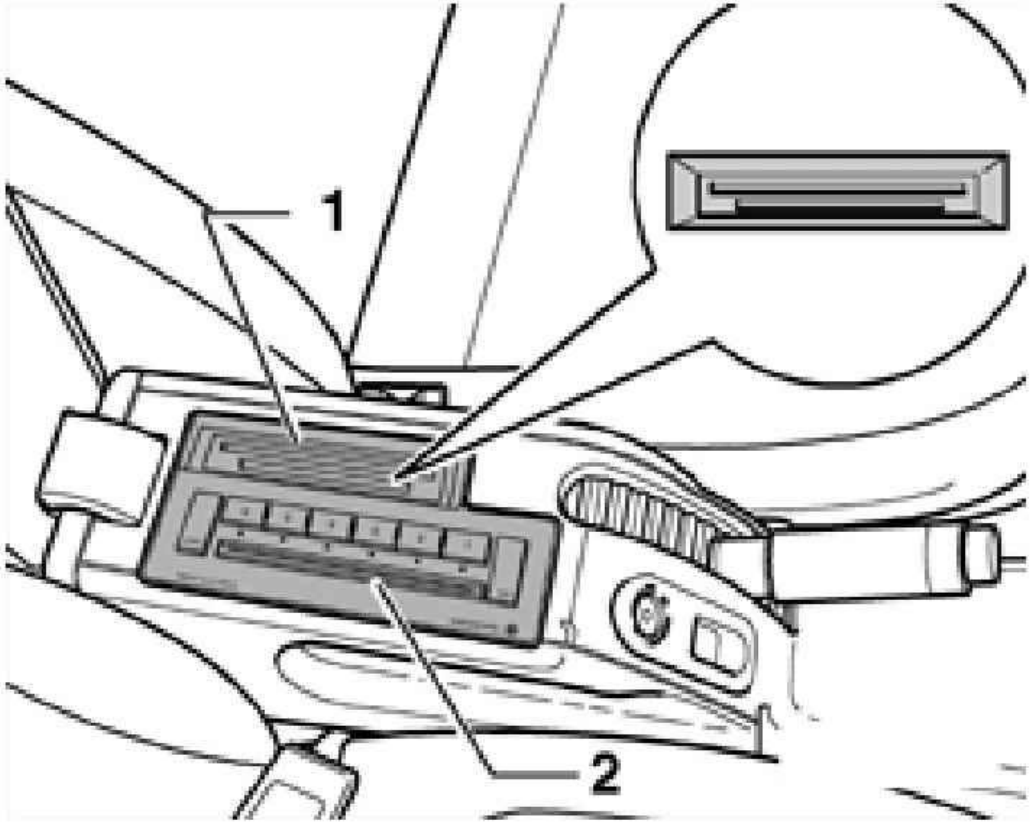


Fig. 20: Disconnecting Automatic Pre-Selector Connection
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Pull rear edge of trim -1- (with clock) downward off roof trim and unhook trim along forward edge.
- Disconnect connection -2- for interior light (and clock).

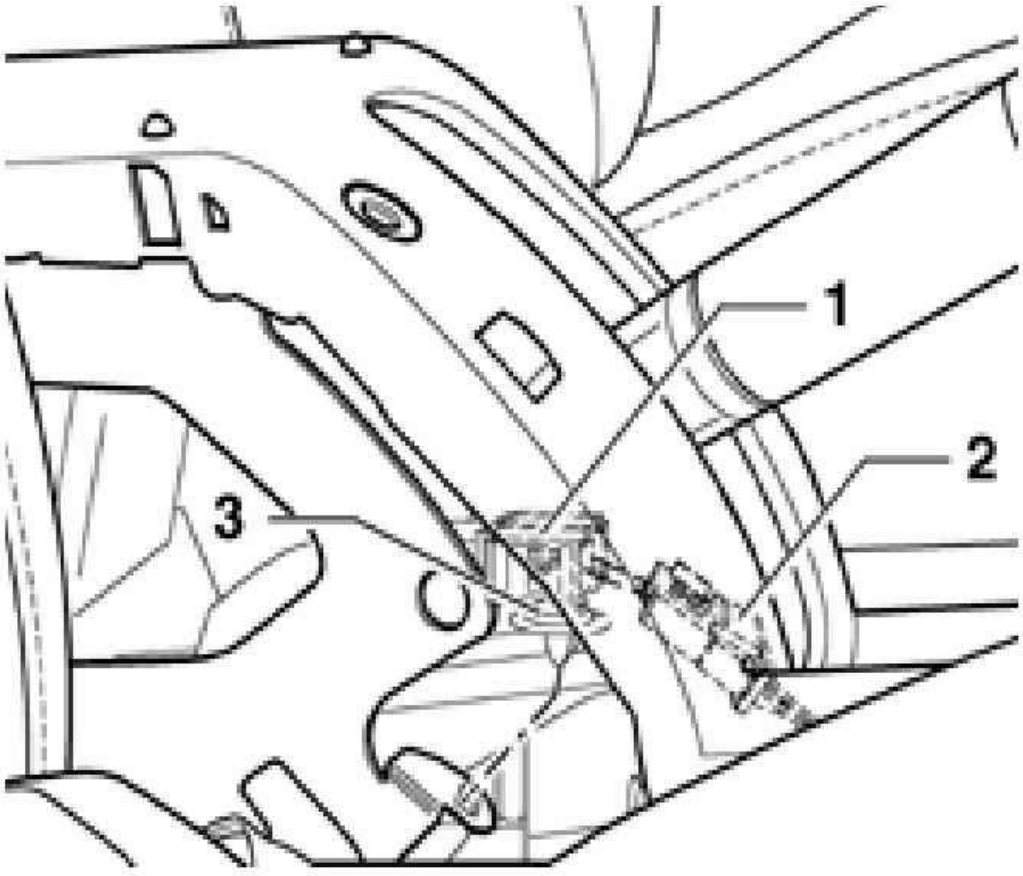


Fig. 21: Pulling Rear Edge Of Trim (With Clock) Downward Off Roof Trim
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Press interior mirror -1- downward at an angle -arrow- off the retaining plate (spring clip in mirror base).

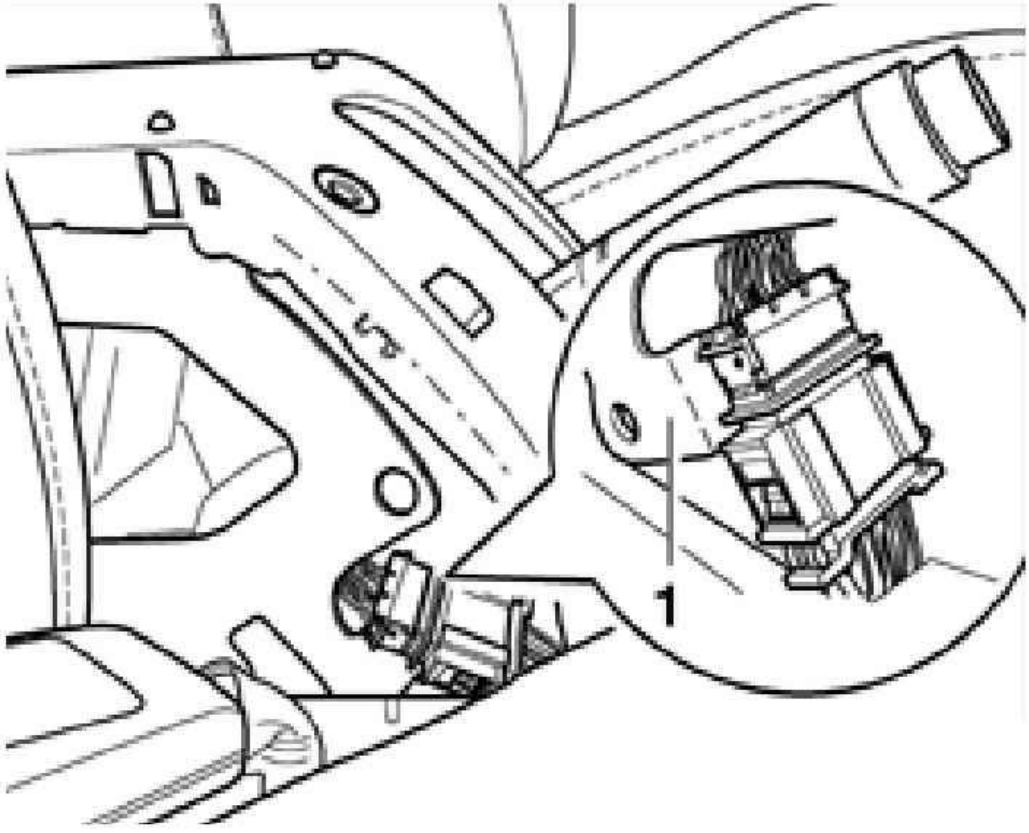


Fig. 22: Pressing Interior Mirror Downward At An Angle Off Retaining Plate
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Pry vanity light out using a screwdriver and disconnect connections.

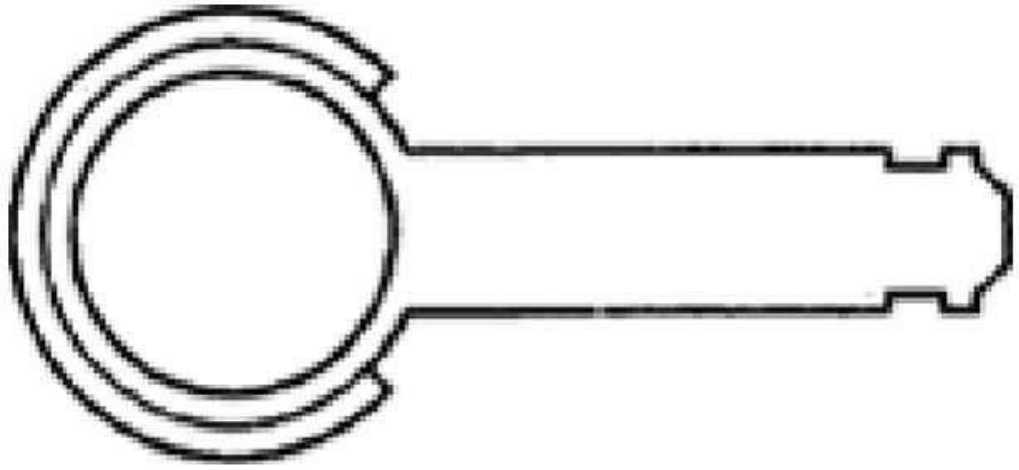


Fig. 23: Prying Vanity Light Out
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Unhook sun visor -1- from mounting -2-.
- Pry out cover caps -6-.
- Remove bolt/screw -5-.
- Release sun visor mounting -4- from mounting and separate connection -3-.
- Pry off cover caps -7-.
- Remove screws -8- and remove mounting -2-.
- Remove hand holds on left and right-hand sides of roof.

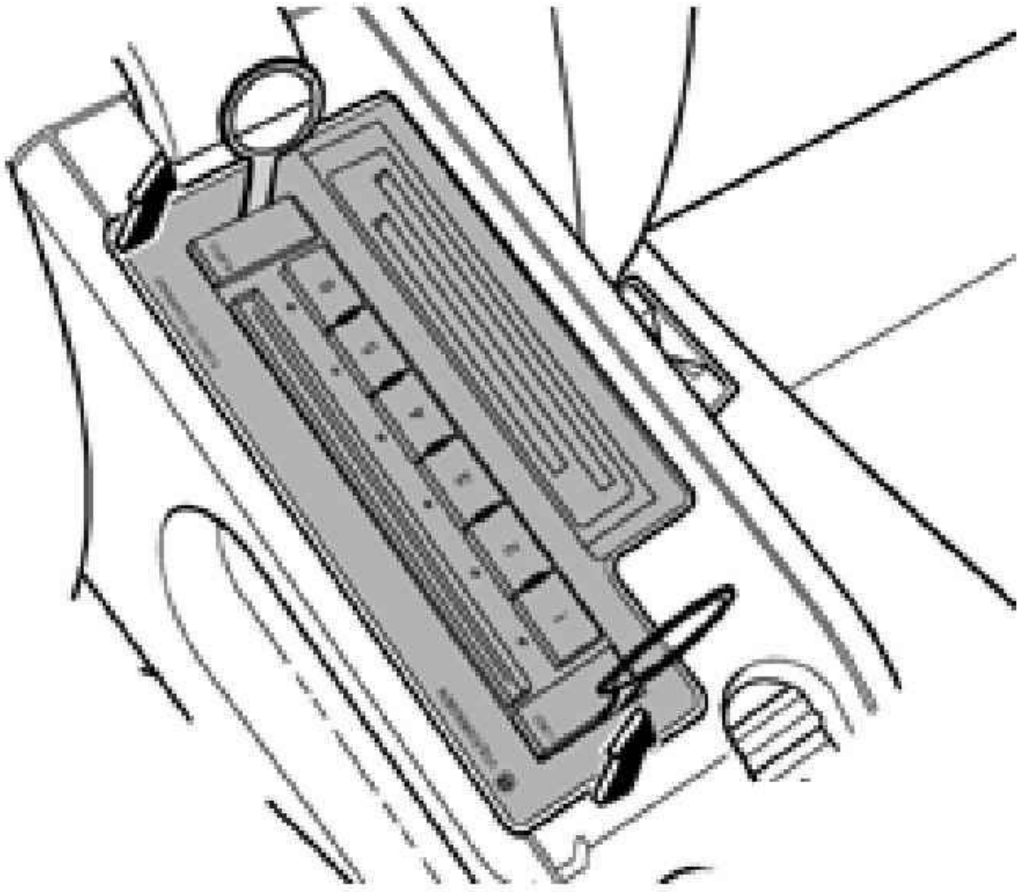
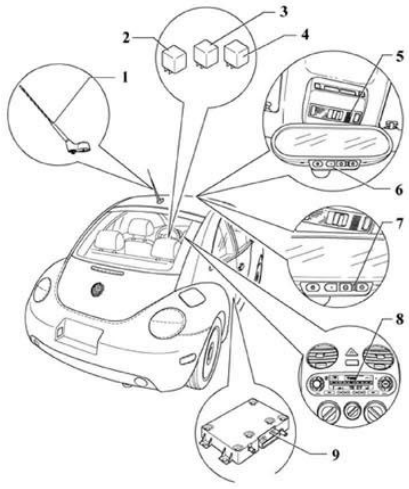


Fig. 24: Removing Sun Visor From Mounting
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Open hand hold -1- downward.
- Pry cover -2- upward using a screwdriver and fold open.
- Remove Phillips screws -3- and remove handle -1-.



1 - Antenna -R11-, Antenna Amplifier -R24- and Antenna for Navigation System (GPS) -R50-

- On roof, rear
- Removing and installing

2 - Dual Horn Auxiliary Relay -J733-

- On 13-position auxiliary relay panel, above relay panel.

3 - Auxiliary Emergency Flasher Relay -J517-

- On 13-position auxiliary relay panel, above relay panel.

4 - Warning Lamp Auxiliary Relay -J734-

- On 13-position auxiliary relay panel, above relay panel.

5 - Telephone Microphone -R38-

- Integrated with front interior light module.
- Removing and installing

6 - Telematic Control Head -E264-

- Integrated with rear view mirror.
- OnStar® buttons, description
- Includes telematics indicator lamp -7-.
- Removing and installing

7 - Telematics Indicator Lamp -K186-

- In Telematic Control Head.
- LED indicates telematic system operational status. Description
- Telematic system, troubleshooting using telematics indicator lamp

8 - Radio -R-

- In center console.

9 - Telematic Control Module -J499-

- Installed behind right rear side panel trim under rear speaker.
- Removing and installing
- Control module multi-pin connector terminal assignments

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Fig. 25: Opening Hand Hold Downward
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Remove trim from left and right-hand A-pillars.

See **A-PILLAR UPPER TRIM, REMOVING AND INSTALLING**

- Carefully unhook molded headliner at front of roof cut-out -arrows- and pull downward until screws for sliding/tilting sunroof can be accessed.

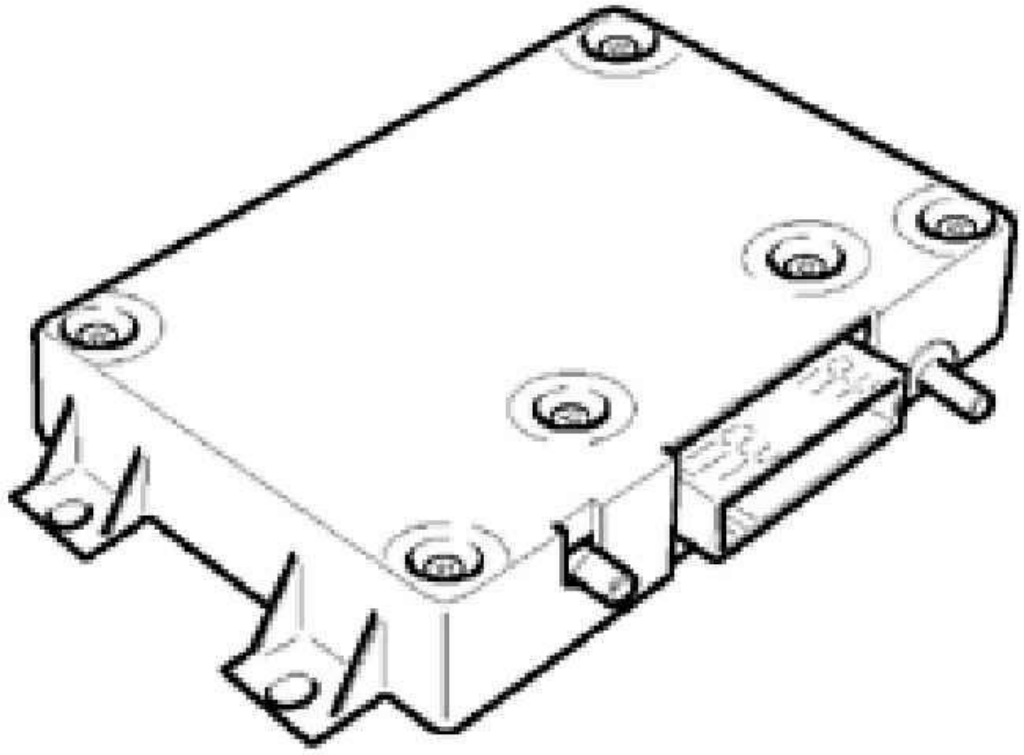


Fig. 26: Removing Molded Headliner From Front Of Roof Cut-Out
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Unclip and disconnect connection.
- Remove screws/bolts -arrows- and pull out drive for sliding/tilting sunroof.

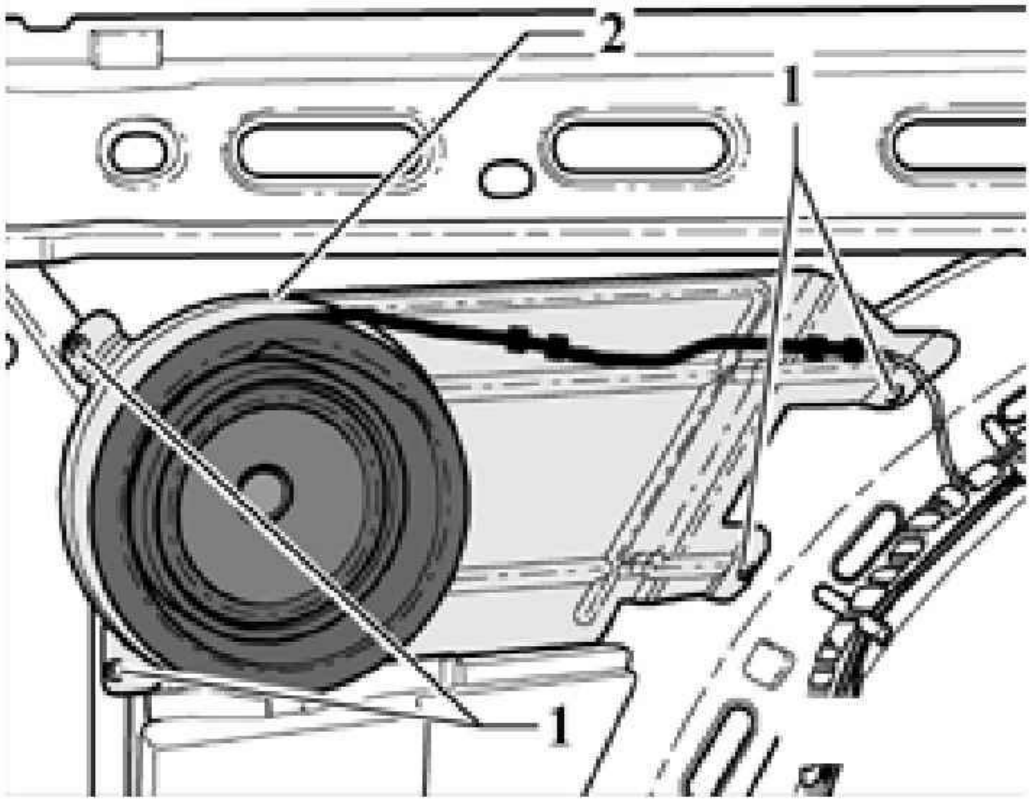


Fig. 27: Removing Sliding/Tilting Sunroof Drive Screws/Bolts
Courtesy of VOLKSWAGEN OF AMERICA, INC.

The bolts/screws for the drive are micro-encapsulated and must always be replaced (3.5 N.m).

DRIVE FOR SLIDING/TILTING SUNROOF ("0" POSITION), ADJUSTING

There may be a requirement to adjust the "0" position if drive was removed when not in "0" position or sliding/tilting sunroof was closed using emergency key.

Drive removed but still connected electrically.

- Select "tilt sunroof" (raise) with pre-selection control rotary switch.
- Select "close sunroof" with pre-selection control rotary switch.
- Select "open sunroof" with pre-selection control rotary switch.
- Select "close sunroof" with pre-selection control rotary switch.

- Install drive in this position ("0" position) with sliding/tilting sunroof closed.

REMOVING PRE-SELECTION CONTROL FOR SLIDING/TILTING SUNROOF

- Unclip trim -1- in direction of -arrow- and remove.

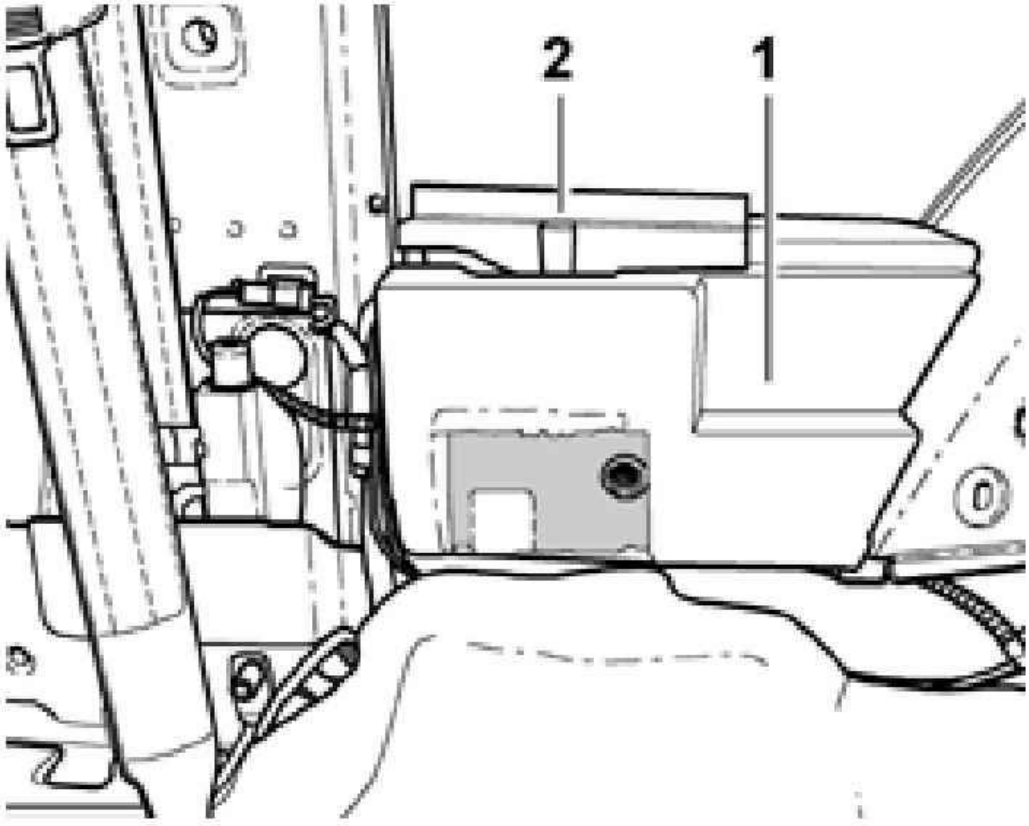


Fig. 28: Removing Trim Clip
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Remove screws -1- and carefully release frame locking lugs -arrows- of the automatic pre selector.

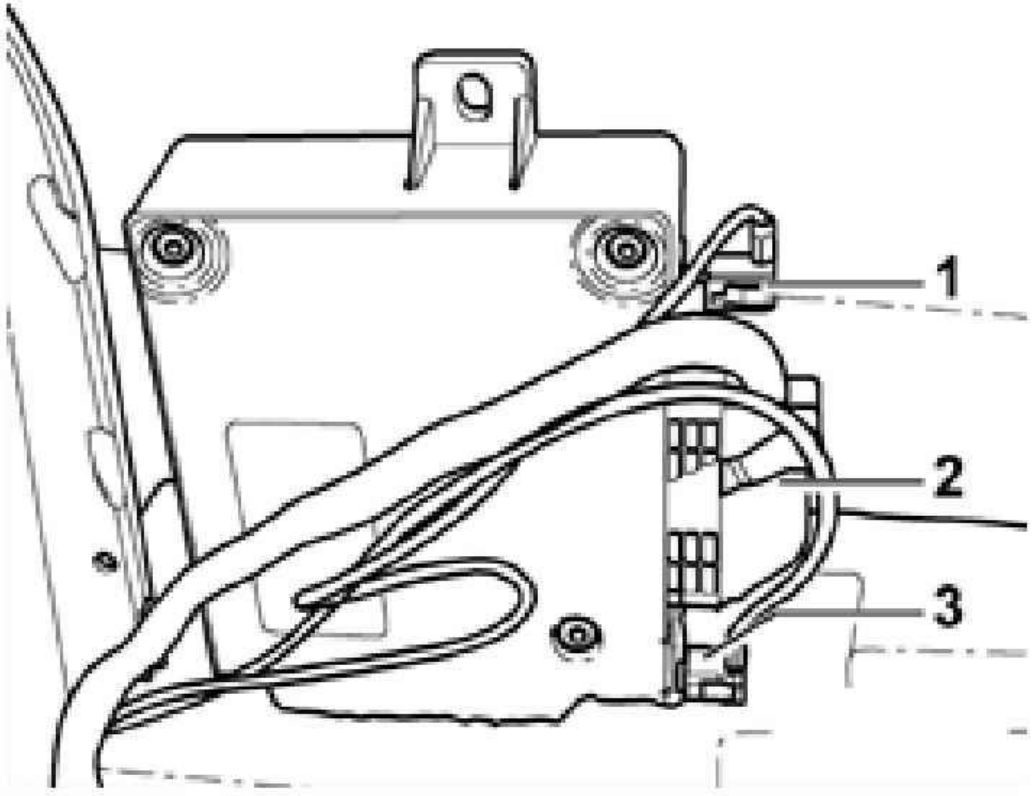


Fig. 29: Removing Frame Locking Lugs Of Automatic Pre Selector
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Disconnect connection.

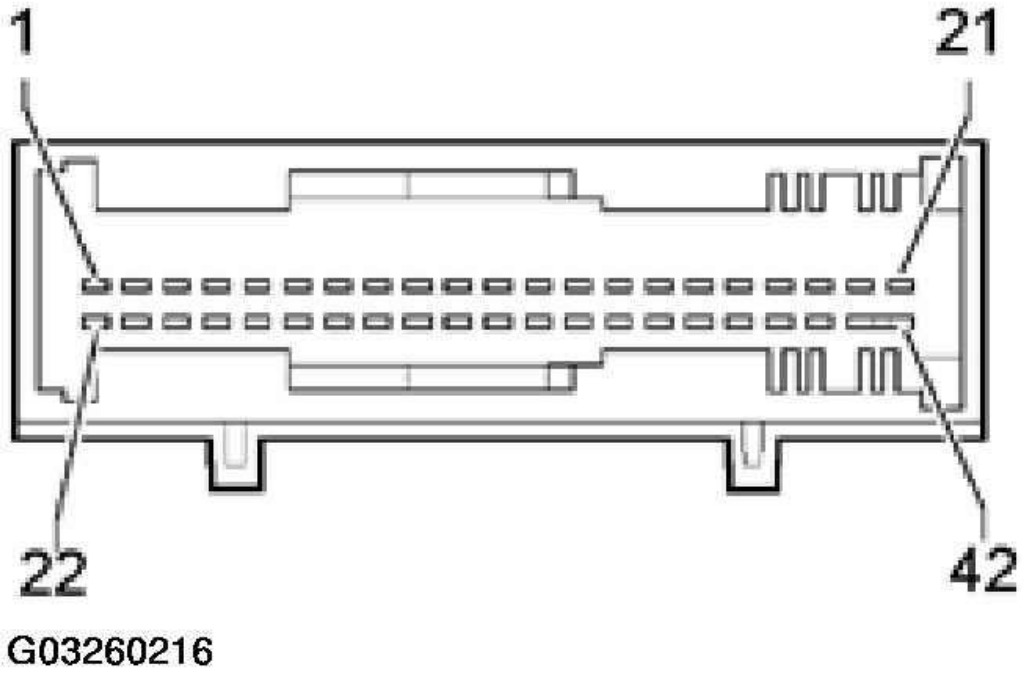


Fig. 30: Disconnecting Automatic Pre Selector Connection
Courtesy of VOLKSWAGEN OF AMERICA, INC.

PARALLEL RUNNING, CHECKING

- Remove sliding/tilting sunroof glass panel, see **SLIDING/TILTING SUNROOF GLASS PANEL, REMOVING** .

  Mark -arrow- on rear of guide upper part -1- must lie within marks -dimension a- on guide rail gate -2-, on both sides.

Fig. 31: Identifying Marks Dimension On Guide Rail Gate
Courtesy of VOLKSWAGEN OF AMERICA, INC.

Guide channel -2- must be located in guide rails (cannot be moved by hand).

PARALLEL RUNNING, ADJUSTING

NOTE: Parallel running adjustment can only be undertaken when drive and glass panel are removed (in "0" position).

- Remove drive for sliding/tilting sunroof, see **DRIVE FOR SLIDING/TILTING SUNROOF, REMOVING** .

  Mark -arrow- on the rear of guide upper part -1- must lie within marks -dimension a- on guide rail gate -2-, on both sides.

Fig. 32: Identifying Mark On Rear Of Guide Upper Part
Courtesy of VOLKSWAGEN OF AMERICA, INC.

Guide channel -2- must be located in guide rails (cannot be moved by hand).

- Slide guide upper part -1- (from front to rear only) centrally between marks.
- Install drive in this position ("0" position).

Then check "0" position.

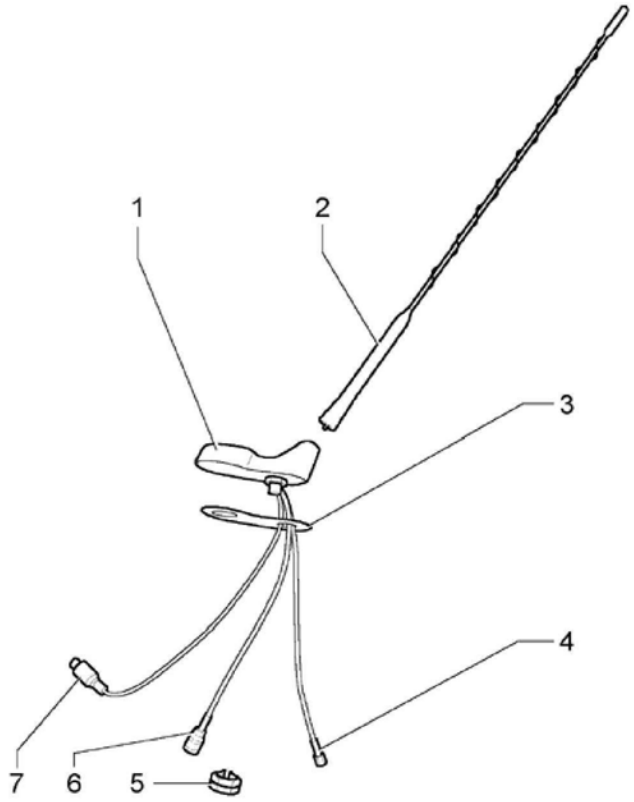
CARRIER UNIT, REMOVING AND INSTALLING

Removing

- Remove pre-selector control for sliding/tilting sunroof, see **REMOVING PRE-SELECTION CONTROL FOR SLIDING/TILTING SUNROOF** .
- Remove molded headliner.

  See **ROOF TRIM** .

- Pull water drain hoses -arrows- off carrier unit -1-
- Remove bolts/screws -2- and -4- (with sleeves) and lift carrier unit out of vehicle with help of a second technician.



1 - Antenna base

2 - Antenna mast

3 - Gasket

4 - Antenna connection
- Navigation (GPS)

- Threaded

5 - Hex nut

6 - Antenna connection
- Radio

- Plug
- Black

7 - Antenna connection
- Telematics

- Plug
- Grey

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Fig. 33: Removing Carrier Unit
Courtesy of VOLKSWAGEN OF AMERICA, INC.

Installing

- Insert carrier unit -1-, align with bolt/screw holes and insert bolts/screws -2- and -4- (with sleeves).
- Check routing of wiring and connections for electrical devices on roof and reinstate if necessary.
- Tighten carrier unit -1- starting at drive -3- for sliding/tilting sunroof on left and right-hand sides moving rearward (8 N.m).
- Install water drain hoses -arrows-.
- Install connection for drive -3-.

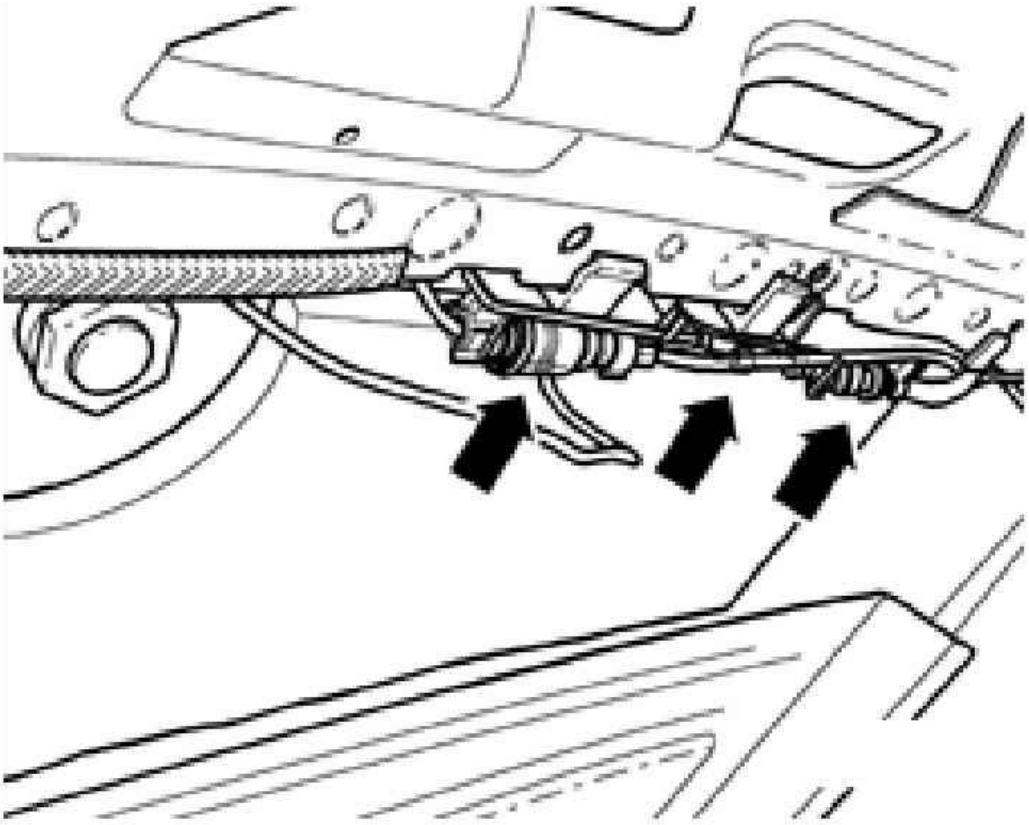


Fig. 34: Installing Carrier Unit
Courtesy of VOLKSWAGEN OF AMERICA, INC.

GUIDE CHANNEL, REMOVING

- Remove sliding/tilting sunroof glass panel, see **SLIDING/TILTING SUNROOF GLASS PANEL, REMOVING** .
- Remove carrier unit, see **CARRIER UNIT, REMOVING AND INSTALLING** .

- Remove drive for sliding/tilting sunroof, see **DRIVE FOR SLIDING/TILTING SUNROOF, REMOVING** .
- Unclip end piece -1- -arrow- from guide rail -2- and then pull off.

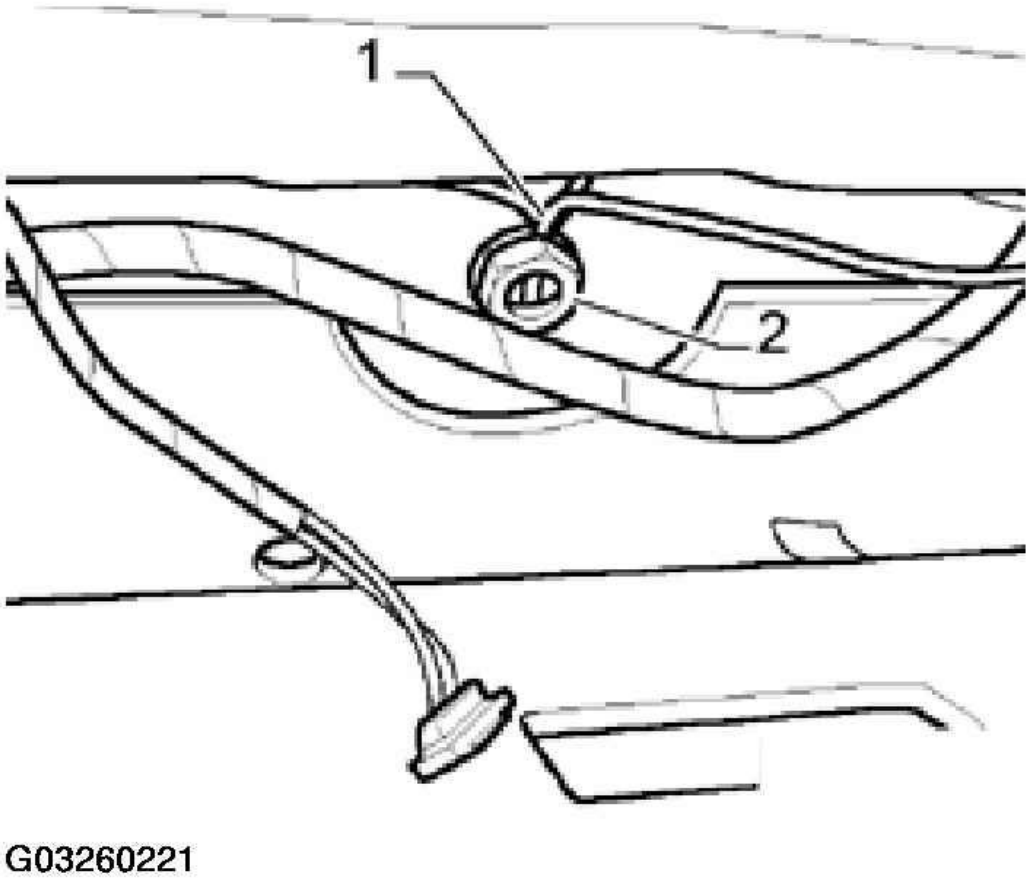


Fig. 35: Removing End Piece Clip From Guide Rail
Courtesy of VOLKSWAGEN OF AMERICA, INC.

NOTE: When installing end piece -1- guide rail seal with Butyl adhesive sealing cord AKL 450 005 05.

- Carefully unclip water channel -1- from mounting on guide locking lug guide -2- on both sides with a screwdriver.

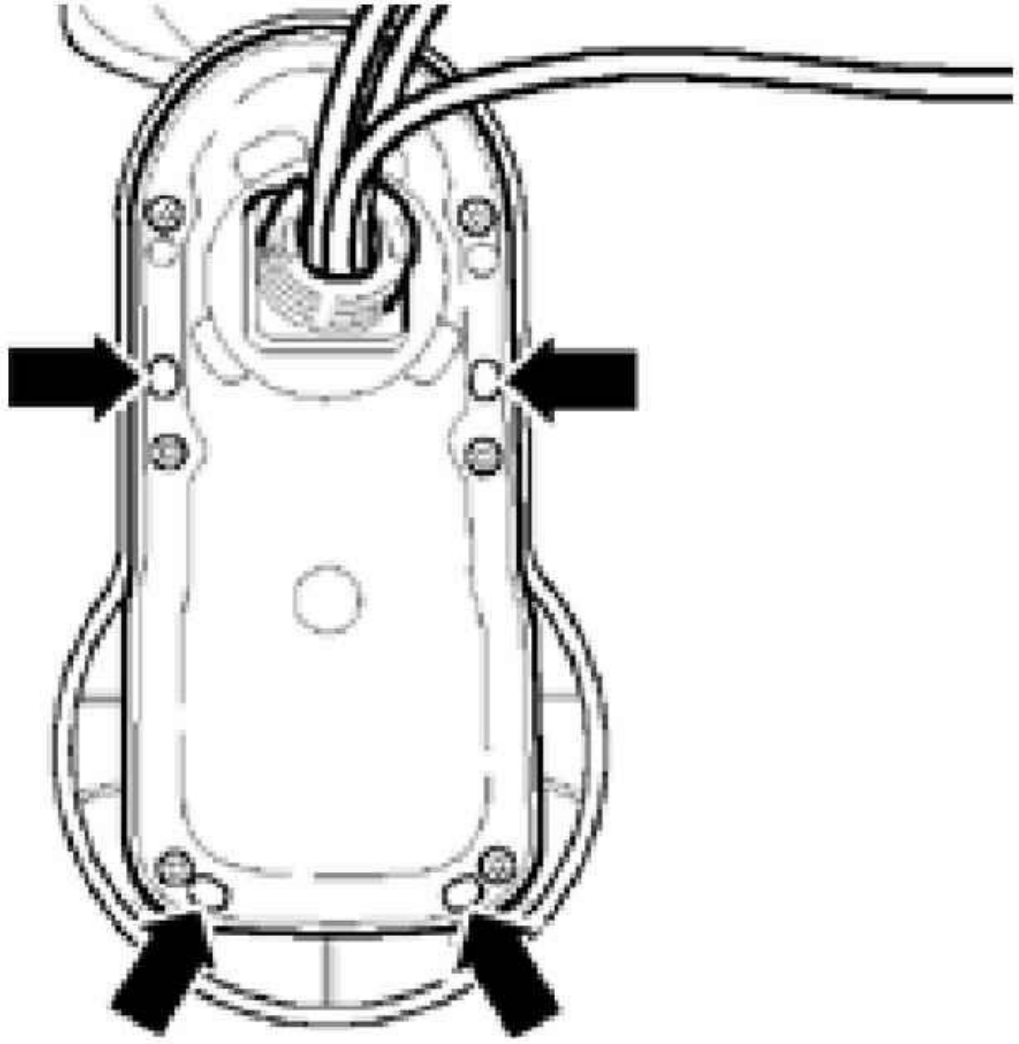


Fig. 36: Removing Water Channel Clip From Mounting On Guide
Courtesy of VOLKSWAGEN OF AMERICA, INC.

- Slide rear guide -1- in guide rail -4- in direction of -arrow- until the locking lug guide -3- is released.
- Pull rear guide -1-, locking lug guide -3- and guide channel -2- together out from guide rails -4-.

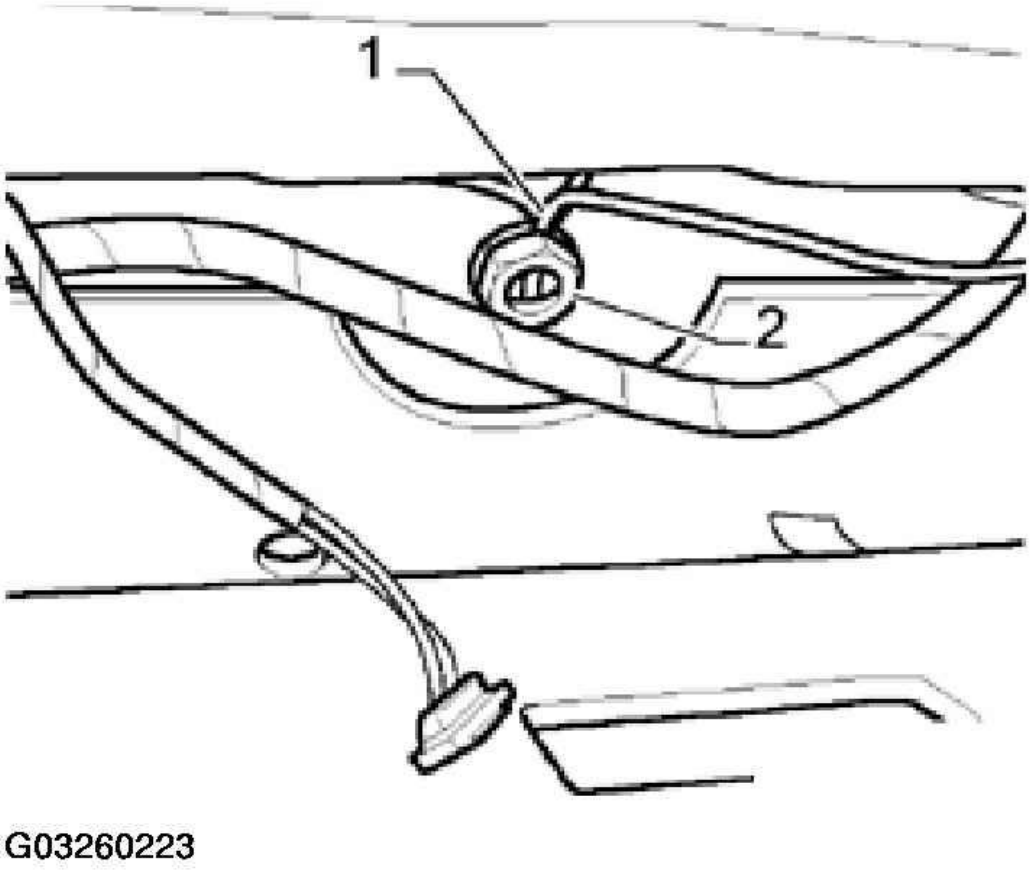


Fig. 37: Sliding Rear Guide In Guide Rail
Courtesy of VOLKSWAGEN OF AMERICA, INC.

NOTE: Always replace guide with cable as a pair.

WATER DRAIN HOSES, CLEANING

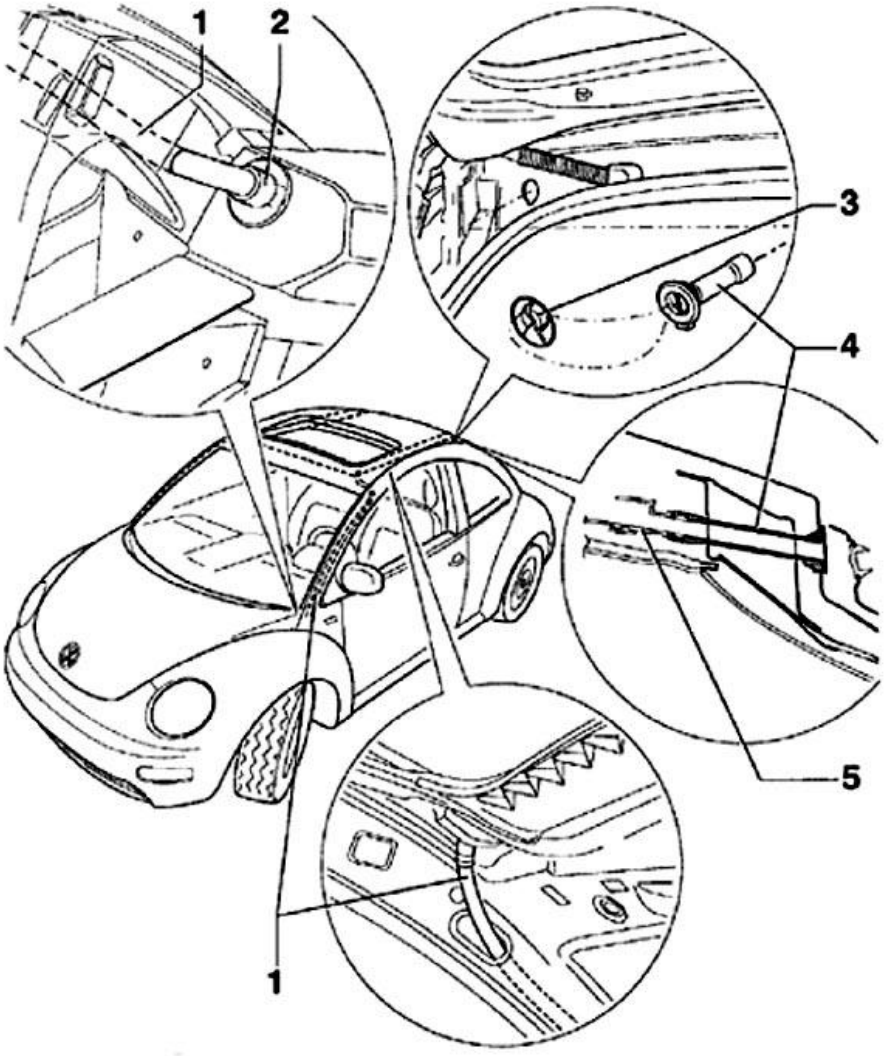
Front & rear water drain hoses:

Front water drain hoses:

The front water drain hoses -1- run in the A-pillars and end with a water drain valve -2- in the plenum chamber. Clean from sliding/tilting sunroof aperture.

1. Front water drain hoses.
2. Front water drain valve.

NOTE: **It is recommended that a probe is used for the cleaning process (locally manufactured from a piece of speedometer cable approx. 1500 mm (60 in.) long).**



1 - Front water drain hoses.

2 - Front water drain valve.

3 - Cover.

4 - Water drain hose with valve.

5 - Carrier unit.

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Fig. 38: Identifying Water Drain Hoses
Courtesy of VOLKSWAGEN OF AMERICA, INC.

Rear water drain hoses:

The rear water drain valves -4- are installed directly onto the sliding/tilting sunroof water drains and exits under the tailgate in the roof channel. The cleaning can be performed from the rear end by removing cover -3-.

3. Cover.
4. Water drain hose with valve.
5. Carrier unit.

NOTE: It is recommended that a probe is used for cleaning process (locally manufactured from a piece of speedometer cable or similar).